

00808314

**DIAGNOSIS AND TREATMENT FOR HELICOBACTER PYLORI INDUCED COLIC
DIAGNOSTIC ET TRAITEMENT DE LA COLIQUE INDUITE PAR HELICOBACTER PYLORI**

Patent Applicant/Assignee:

MERIDIAN BIOSCIENCE INC, 3471 River Hills Drive, Cincinnati, OH 45244, US
, US (Residence), US (Nationality)

Inventor(s):

WILLIS David H Jr, 1562 Muskegon Drive, Cincinnati, OH 45255, US,

Legal Representative:

LEVY Mark P (et al) (agent), Thompson Hine & Flory LLP, 2000 Courthouse
Plaza N.E., P.O. Box 8801, Dayton, OH 45401-8801, US,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200140801 A2-A3 20010607 (WO 0140801)

Application: WO 2000US32749 20001201 (PCT/WO US0032749)

Priority Application: US 99168926 19991203

Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ

DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ

LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG

SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR

(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English

Filing Language: English

Fulltext Word Count: 2741

01290203

IMPROVED METHOD FOR THE DETECTION OF ACID RESISTANT BACTERIA OF THE GENUS
HELICOBACTER IN STOOL
VERBESSERTES VERFAHREN ZUM NACHWEIS VON SAURE-RESISTENTEN BAKTERIEN DER
GATTUNG HELICOBACTER IM STUHL
PROCEDE DE DETECTION DE BACTERIES ACIDO-RESISTANTES DU GENRE HELICOBACTER
DANS LES SELLES

PATENT ASSIGNEE:

Connex Gesellschaft zur Optimierung von Forschung und Entwicklung,
(2542610), Am Klopferspitz 19, 82152 Martinsried, (DE), (Proprietor
designated states: all)

INVENTOR:

REITER, Christian, Rathausstrasse 8, 85757 Karlsfeld, (DE)
CULLMANN, Gerhard, Alramstrasse 28, 81371 Munchen, (DE)
HEPPNER, Petra, Schillerstrasse 9, 82049 Pullach, (DE)
RINGEIS, Achim, Watzmannstrasse 2, 82166 Grafelfing, (DE)
MULLER, Heidemarie, Jagerhuberstrasse 9, 81475 Munchen, (DE)
HAINDL, Eva, Rehsteig 3, 82349 Pentenried, (DE)

LEGAL REPRESENTATIVE:

Eisenfuhr, Speiser & Partner (100158), Arnulfstrasse 25, 80335 Munchen,
(DE)

PATENT (CC, No, Kind, Date): EP 1232392 A1 020821 (Basic)
EP 1232392 B1 030402
WO 2001027613 010419

APPLICATION (CC, No, Date): EP 2000967861 001012; WO 2000EP10058 001012

PRIORITY (CC, No, Date): EP 99120351 991012; EP 2000105592 000316; EP

2000107028 000331; EP 2000110110 000510

DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI;
LU; MC; NL; PT; SE

EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI

RELATED DIVISIONAL NUMBER(S) - PN (AN):

(EP 2003004839)

INTERNATIONAL PATENT CLASS: G01N-033/48

NOTE:

No A-document published by EPO

LANGUAGE (Publication,Procedural,Application): German; German; German

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS B	(English)	200314	1769
CLAIMS B	(German)	200314	1504
CLAIMS B	(French)	200314	1732
SPEC B	(German)	200314	10944
Total word count - document A			0
Total word count - document B			15949
Total word count - documents A + B			15949

Improved method for the detection of acid resistant microorganisms in a stool

Verbessertes Verfahren zum Nachweis von Saure-resistenten Mikroorganismen im Stuhl

Procede de detection ameliore de micro-organismes acido-resistants dans les selles

PATENT ASSIGNEE:

Connex Gesellschaft zur Optimierung von Forschung und Entwicklung,
(2542610), Am Klopferspitz 19, 82152 Martinsried, (DE), (Applicant
designated States: all)

INVENTOR:

Reiter, Christian, Rathausstrasse 8, 85757 Karlsfeld, (DE)
Cullmann, Gerhard, Alramstrasse 28, 81371 Munchen, (DE)
Muller, Heidemarie, Jagerhuberstrasse 9, 81475 Munchen, (DE)
Heppner, Petra, Schillerstrasse 9, 82049 Pullach, (DE)
Haindl, Eva, Rehsteig 3, 82349 Petenried, (DE)
Ringeis, Achim, Watzmannstrasse 2, 82166 Grafelfing, (DE)

LEGAL REPRESENTATIVE:

Eisenfuhr, Speiser & Partner (100158), Arnulfstrasse 25, 80335 Munchen,
(DE)

PATENT (CC, No, Kind, Date): EP 1336850 A1 030820 (Basic)

APPLICATION (CC, No, Date): EP 2003004839 001012;

PRIORITY (CC, No, Date): EP 99120351 991012; EP 2000105592 000316; EP
2000107028 000331; EP 2000110110 000510

DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI;
LU; MC; NL; PT; SE

EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI

RELATED PARENT NUMBER(S) - PN (AN):

EP 1232392 (EP 2000967861)

INTERNATIONAL PATENT CLASS: G01N-033/569; C07K-016/12; C07K-016/40

TRANSLATED ABSTRACT WORD COUNT: 297

ABSTRACT WORD COUNT: 193

NOTE:

Figure number on first page: NONE

LANGUAGE (Publication,Procedural,Application): German; German; German

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(German)	200334	1880
SPEC A	(German)	200334	11293
Tptal word count - document A			13173
Total word count - document B			0
Total word count - documents A + B			13173

intestinal cancer can be detected in a **faecal** sample using a test strip according to the invention to show the presence of human...
...called IGFBP-1 in a vaginal secretion sample. If two different label concentrations of a **monoclonal** antibody against IGFBP-1 are used in the same test, it is possible to detect...

...to show the presence of antibodies connected to infections, such as IgG class antibodies against **Helicobacter pylori** in serum. Said bacteria have been found to be an important etiologic factor in gastric...

2/6,KWIC/47 (Item 1 from file: 348)

DIALOG(R)File 348:(c) 2004 European Patent Office. All rts. reserv.

01621258

Improved method for the detection of acid resistant microorganisms in a stool

Verbessertes Verfahren zum Nachweis von Saure-resistenten Mikroorganismen im Stuhl

Procede de detection ameliore de micro-organismes acido-resistants dans les selles

LANGUAGE (Publication,Procedural,Application): German; German; German

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
----------------	----------	--------	------------

CLAIMS A	(German)	200334	1880
----------	----------	--------	------

SPEC A	(German)	200334	11293
--------	----------	--------	-------

Total word count - document A	13173
-------------------------------	-------

Total word count - document B	0
-------------------------------	---

Total word count - documents A + B	13173
------------------------------------	-------

...ABSTRACT Translated)

Detecting infections by acid-resistant microorganisms, particularly for diagnosing **Helicobacter pylori**, comprises immunochromatographic detection of antigen in **feces**

Detecting infection by an acid-resistant microorganism (A), in a mammal, comprises using immunochromatography. Detecting...

...a) preparing an immunochromatographic test strip having a sample application zone (I); (b) applying a **fecal** sample, containing an antigen (Ag) of (A) to (I); (c) incubating the sample with: (i...

...incubation system, an analytical region and a system for transporting the Ag-R1 complex; (2) **monoclonal** antibodies (**MAb**), their fragments or derivatives, that have a variable region comprising at least one of 24
...

2/6,KWIC/48 (Item 2 from file: 348)

DIALOG(R)File 348:(c) 2004 European Patent Office. All rts. reserv.

01381903

IMMUNOASSAY FOR **i H. PYLORI** /i IN **FECAL SPECIMENS USING GENUS SPECIFIC MONOCLONAL ANTIBODY**

IMMUNOASSAY FUR **H. PYLORI** IN **FAKALIENPROBEN BESTIMMT MIT GATTUNGSSPEZIFISCHES ANTIKORPER**

DOSAGE IMMUNOLOGIQUE DE **i H. PYLORI** /i DANS DES ECHANTILLONS DE MATIERES **FECALES AU MOYEN D'UN ANTICORPS MONOCLONAL SPECIFIQUE D'UN GENRE**

LANGUAGE (Publication,Procedural,Application): English; English; English

IMMUNOASSAY FOR **i H. PYLORI** /i IN **FECAL SPECIMENS USING GENUS SPECIFIC MONOCLONAL ANTIBODY**

DOSAGE IMMUNOLOGIQUE DE **i H. PYLORI** /i DANS DES ECHANTILLONS DE MATIERES **FECALES AU MOYEN D'UN ANTICORPS MONOCLONAL SPECIFIQUE D'UN GENRE**

2/6,KWIC/49 (Item 3 from file: 348)

DIALOG(R)File 348:(c) 2004 European Patent Office. All rts. reserv.

01355024

(5) Storage...constitution mentioned above, can provide monoclonal antibodies capable of recognizing the epitope occurring specifically in **Helicobacter pylori** catalase. Further, by using the **monoclonal** antibodies of the invention, it is possible to very specifically recognize **Helicobacter pylori**. **Hybridoma** lines producing **monoclonal** antibodies recognizing **Helicobacter pylori** catalase have successfully been established, so that the same **monoclonal** antibodies can be produced semi-permanently. The diagnosis kit in which the **monoclonal** antibody of the invention is used can use digestive tract excreta as specimens and can detect **Helicobacter pylori** infection in a simple and efficient manner without causing pain on subjects. Even when only one **monoclonal** antibody species is used, the diagnosis kit of the invention shows very good precision, shows no difference among lots, is stable and can detect **Helicobacter pylori** infection always specifically and with great accuracy.

2/6,KWIC/51 (Item 5 from file: 348)
 DIALOG(R)File 348:(c) 2004 European Patent Office. All rts. reserv.

01290203

IMPROVED METHOD FOR THE DETECTION OF ACID RESISTANT BACTERIA OF THE GENUS **HELICOBACTER** IN STOOL

VERBESSERTES VERFAHREN ZUM NACHWEIS VON SAURE-RESISTENTEN BAKTERIEN DER GATTUNG **HELICOBACTER** IM STUHL

PROCEDE DE DETECTION DE BACTERIES ACIDO-RESISTANTES DU GENRE **HELICOBACTER** DANS LES SELLES

LANGUAGE (Publication,Procedural,Application): German; German; German

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS B	(English)	200314	1769
CLAIMS B	(German)	200314	1504
CLAIMS B	(French)	200314	1732
SPEC B	(German)	200314	10944
Total word count - document A			0
Total word count - document B			15949
Total word count - documents A + B			15949

...CLAIMS suivants, de preference CDR3 et plus preferentiellement tous les trois CDR suivants : ou

43. Anticorps **monoclonal** , fragment ou derive de celui-ci qui comprend une region V qui comporte une combinaison...

...de maniere specifique un antigene d'une catalase de **Helicobacter** ou d'une metalloproteinase de **Helicobacter** et qui est eventuellement fixe sur un materiau de support, pour la detection d' **Helicobacter** dans les **excrements** .

47. Dispositif de test pour la detection d'au moins un epitope tel que defini...

...et 43 a 45 qui lie de maniere specifique un antigene d'une catalase de **Helicobacter** ou d'une metalloproteinase de **Helicobacter** , fixe sur un materiau de support ; et

(b) un dispositif pour la preparation et l'analyse d' echantillons d' **excrements** .

48. Dispositif de test pour la detection d'au moins un epitope tel que defini...

...et 43 a 45 qui lie de maniere specifique un antigene d'une catalase de **Helicobacter** ou d'une metalloproteinase de **Helicobacter** le recepteur etant conjugue avec de l'or colloidal, des particules de latex ou d...

...nm (latex) ; et

(b) un dispositif pour la preparation et l'analyse d'echantillons d' **excrements** .

49. Kit comprenant

(a) un recepteur tel que defini dans l'une des revendications 3...

...et 43 a 45 qui lie de maniere specifique un antigene d'une catalase de

DIALOG(R)File 654:US Pat.Full.

(c) Format only 2004 The Dialog Corp. All rts. reserv.

4177147

Derwent Accession: 1999-457111

Utility

REASSIGNED

C/ Immunoassay for H. pylori in fecal specimens

; DETECTING HELIOBACTER PYLORI ANTIGENS SAMPLE USING SENSITIVE AND ACCURATE SANDWICH ASSAY

Inventor: Larka, Christopher Vance, Cincinnati, OH

Yi, Ching Sui Arthur, Cincinnati, OH

Kozak, Kenneth James, Cincinnati, OH

Assignee: Meridian Diagnostics, Inc. (02), Cincinnati, OH

Meridian Diagnostics Inc (Code: 44554)

Examiner: Housel, James C. (Art Unit: 161)

Assistant Examiner: Portner, Ginny Allen

Law Firm: Thompson, Hine & Flory LLP

	Publication Number	Kind	Date	Application Number	Filing Date
	-----	--	-----	-----	-----
Main Patent	US 5932430	A	19990803	US 9837894	19980310
CIP	US 5871942	A		US 97897732	19970721
CIP	US 5716791	A		US 96647115	19960509

...to show the presence of antibodies connected to infections, such as IgG class antibodies against **Helicobacter pylori** in serum. Said bacteria have been found to be an important etiologic factor in gastric...

2/6,KWIC/43 (Item 11 from file: 654)

DIALOG(R) File 654:(c) Format only 2004 The Dialog Corp. All rts. reserv.

4177147

Derwent Accession: 1999-457111

Utility

C/ Immunoassay for H. pylori in fecal specimens

; DETECTING HELIOBACTER PYLORI ANTIGENS SAMPLE USING SENSITIVE AND ACCURATE SANDWICH ASSAY

Fulltext Word Count: 5511

Number of Claims: 20

Exemplary or Independent Claim Number(s): 1

Number of Drawing Sheets: 1

Number of Figures: 2

Number of US cited patent references: 23

Number of non-US cited patent references: 6

Number of non-patent cited references: 13

Summary of the Invention:

...assay around the use of a single antigen. They also rule out the use of **monoclonal** antibodies. One approach that has been taken to improving the specificity and selectivity of antibody...for the invasive procedure. By contrast, if an immunoassay could be designed for detecting H. **pylori** antigen instead of the antibody, the need to obtain gastric biopsies to confirm infection could...

...days of its treatment. Thus, there is a need for an ELISA which detects H. **pylori** antigen and, more particularly, there is a need for an ELISA for detecting H. **pylori** directly from **fecal** specimens...

...While ELISA's for detecting microorganisms such as C. difficile and adenovirus in **fecal** specimens are known, in studies of patients with gastric biopsies which are positive for H. **pylori**, the bacteria ordinarily can not be cultured and isolated from the **fecal** specimens. This and the problems of cross reactivity and strain variation raised serious doubts that an ELISA could be designed that would be specific for H. **pylori** and sensitive enough to reliably detect H. **pylori** antigen directly from a **fecal** specimen...

...The present invention provides a method for detecting H. **pylori** in **fecal** specimens which comprises...

...a) dispersing a **fecal** specimen suspected of carrying H. **pylori** in a sample diluent...

...b) contacting the **fecal** specimen in the diluent with a first polyclonal antibody for H. **pylori** antigen to form a complex of the antibody and the antigen...

Description of the Invention:

...In addition to being detectable by sandwich assays, H. **pylori** should also be detectable in **fecal** specimens by other assays including competitive assays, agglutination, nephelometry, turbidimetry and flow cytometry...

...In accordance with a further embodiment of the invention, H. **pylori** is detected in a **fecal** specimen using a competitive assay. Competitive assays can assume various formats. In one embodiment, a sample of the **fecal** specimen is dispersed in a sample diluent which contains (or to which is subsequently added) a predetermined amount (e.g., 10-500 pg) of labeled H. **pylori** antigen. The labeled antigen can be prepared in a conventional manner such as by iodination. A quantity of a polyclonal (or mixed **monoclonal**) antibody for the antigen is added to the sample in an

amount which is not...

...In another embodiment, H. **pylori** antigen bound to a solid phase is contacted with a test sample prepared by dispersing a **fecal** specimen in a sample diluent, and is incubated with an indicator comprising a conjugate ofIn assaying a **fecal** specimen by agglutination, the **fecal** specimen is dispersed in a sample diluent to which a carrier coated with polyclonal antibody...

...carriers conventionally used in assays such as colored latex beads, erythrocytes, etc. When the H. **pylori** antigen is present, antibody-antigen crosslinking occurs and the carrier is observed to clump together. H. **pylori** is detectable visually or by nephelometry and/or turbidimetry in an analogous manner. A sample of **fecal** specimen is dispersed in a sample diluent containing polyclonal antibody and incubated. Due to the...

...In flow cytometry, H. **pylori** is dispersed in a sample diluent which is incubated with an antibody labeled fluorophore such...

2/6,KWIC/44 (Item 12 from file: 654)

DIALOG(R)File 654:(c) Format only 2004 The Dialog Corp. All rts. reserv.

4110065 **IMAGE Available

Derwent Accession: 1999-166634

Utility

C/ Immunoassay for H. **pylori** in fecal specimens

; **HELICOBACTER FOR GASTROINTESTINAL DISORDERS AND POLYCLONAL ANTIBODIES**

Fulltext Word Count: 4597

Number of Claims: 14

Exemplary or Independent Claim Number(s): 1

Number of Drawing Sheets: 1

Number of Figures: 2

Number of US cited patent references: 14

Number of non-US cited patent references: 6

Number of non-patent cited references: 3

Summary of the Invention:

...assay around the use of a single antigen. They also rule out the use of **monoclonal** antibodies. One approach that has been taken to improving the specificity and selectivity of antibody...for the invasive procedure. By contrast, if an immunoassay could be designed for detecting H. **pylori** antigen instead of the antibody, the need to obtain gastric biopsies to confirm infection could...

...days of its treatment. Thus, there is a need for an ELISA which detects H. **pylori** antigen and, more particularly, there is a need for an ELISA for detecting H. **pylori** directly from **fecal** specimens...

...While ELISA's for detecting microorganisms such as C. **difficile** and adenovirus in **fecal** specimens are known, in studies of patients with gastric biopsies which are positive for H. **pylori**, the bacteria ordinarily can not be cultured and isolated from the **fecal** specimens. This and the problems of cross reactivity and strain variation raised serious doubts that an ELISA could be designed that would be specific for H. **pylori** and sensitive enough to reliably detect H. **pylori** antigen directly from a **fecal** specimen...

...The present invention provides a method for detecting H. **pylori** in **fecal** specimens which comprises...

...a) dispersing a **fecal** specimen suspected of carrying H. **pylori** in a sample diluent...

...b) contacting the **fecal** specimen in the diluent with a first polyclonal antibody for H. **pylori** antigen to form a complex of the antibody and the antigen...

0005321338 **IMAGE Available

Derwent Accession: 2001-515460

Method for detecting helicobacter pylori and heilmanii in fecal and salivary specimen and biopsy material

Inventor: Franz Armbruster, INV

Katarina Crevar, INV

Jana Ruppert, INV

Correspondence Address: Jesse A Hirshman Kirkpatrick & Lockhart, Henry W
Oliver Building 535 Smithfield Street, Pittsburgh, PA, 15222-2312, US

	Publication Number	Kind	Date	Application Number	Filing Date
	-----	--	-----	-----	-----
Main Patent	US 20030148411	A1	20030807	US 2003203679	20030122
PCT				WO 2001EP1639	20010214
Priority				DE 10006432	20000214

Fulltext Word Count: 39268

Number of Claims: 117

Exemplary or Independent Claim Number(s):

1,5,10,14,24,36,43,59,64,66,68,83,88,95,102,103,104,107,113

Number of Drawing Sheets: 15

Number of Figures: 15

Non-exemplary or Dependent Claim(s):

...80. The method of claim 78, wherein the antibody is **monoclonal** ... cholerae, *Vibrio parahaemolyticus*, *Vibrio alginolyticus*, *Pseudomonas phosphoreum*, *Yersinia enterocolitica*, *Escherichia coli*, *Salmonella typhimurium*, *Haemophilus influenzae*, **Helicobacter pylori**, *Bacillus subtilis*, *Borrelia burgdorferi*, *Neisseria meningitidis*, *Neisseria gonorrhoeae*, *Yersinia pestis*, *Campylobacter jejuni*, *Deinococcus radiodurans*, *Mycobacterium tuberculosis*, *Enterococcus faecalis*, *Streptococcus pneumoniae*, *Streptococcus pyogenes* and *Staphylococcus aureus*...

2/6,KWIC/40 (Item 8 from file: 654)

DIALOG(R) File 654:(c) Format only 2004 The Dialog Corp. All rts. reserv.

0005321338 **IMAGE Available

Derwent Accession: 2001-515460

Method for detecting helicobacter pylori and heilmanii in fecal and salivary specimen and biopsy material

Fulltext Word Count: 4309

Number of Claims: 11

Exemplary or Independent Claim Number(s): 1

Number of Drawing Sheets: 2

Number of Figures: 2

Summary of the Invention:

...through nausea and retching. In practically all patients having a Type B gastritis, an *H. pylori* infection can be found. Despite the commonly massive immune reaction the infection becomes chronic with...

...or the kind of bacteria type. Spontaneous recoveries are rare. As a rule, a *H. pylori* infection, if not treated, persists for the whole life ...

...0003] An *H. pylori* infection can be diagnosed by means of culturing the pathogen from an antrum or corpus...

...breath test, the detection of antibodies against *H. pylori* in the serum, the PCR detection of **Helicobacter** DNA in a gastric fluid or **fecal** sample and the detection of *H. pylori* antigens in a **fecal** sample. U.S. Pat. No. 5,716,791 (Larka et al.) and EP 0 806 667 (Meridian Diagnostics Inc.) describe an immunoassay for *H. pylori* antigens in the stool. The assay is based on two affinity purified polyclonal antibodies against *H. pylori* antigen. Further there is available from Connex GmbH, Martinsried, Germany, an instant test which is based on a lateral flow chromatography of gold-marked **monoclonal** antibodies against *H. pylori* antigens. These so-called HpSA tests (**Helicobacter pylori** Stool Antigen) have provided in various clinical studies a good agreement with cases diagnosed by...unsuitable for monitoring an eradication treatment, since it only functions with abundant quantities of *H. pylori* antigen in the stool. The further diagnostic methods are in part very complicated, stressful for...sIgA antibody tested for cross-reactivity. The secondary antibody is biotin-conjugated rabbit-anti-*H. pylori* antibody, so that the quantity of the bound secondary antibody can be determined through the...

...embodiment the first primary antibody, bound to the solid phase, is a rabbit-anti-*H. pylori* antibody, the second primary antibody ...sIgA antibody and the secondary antibody is a polyclonal horseradish peroxidase-conjugated goat-anti-*H. pylori* antibody. There can, however, also be employed other immunoglobulins of the horse, cattle, pig, sheep

2/3/33 (Item 1 from file: 654)
DIALOG(R)File 654:US Pat.Full.
(c) Format only 2004 The Dialog Corp. All rts. reserv.

0005636683 **IMAGE Available

Novel helicobacter pylori-binding substances and use thereof

Inventor: Karlsson, Karl-Anders, INV

Leonardsson, Irene, INV

Teneberg, Susann, INV

Angstrom, Jonas, INV

Correspondence Address: BIRCH STEWART KOLASCH & BIRCH, PO BOX 747, FALLS
CHURCH, VA, 22040-0747, US

	Publication Number	Kind	Date	Application Number	Filing Date
	-----	--	-----	-----	-----
Main Patent	US 20040086514	A1	20040506	US 2002149608	20020614
PCT				WO 2000SE2567	20001215
Priority				SE 994581	19991215

Fulltext Word Count: 20728

00811929

NOVEL HELICOBACTER PYLORI-BINDING SUBSTANCES AND USE THEREOF

NOUVELLES SUBSTANCES DE LIAISON D'HELICOBACTER PYLORI ET LEUR UTILISATION

Patent Applicant/Assignee:

A+ SCIENCE INVEST AB, Box 3096, S-400 10 Goteborg, SE, SE (Residence), SE
(Nationality), (For all designated states except: US)

Patent Applicant/Inventor:

KARLSSON Karl-Anders, Nilssonsberg 37, S-411 43 Goteborg, SE, SE
(Residence), SE (Nationality), (Designated only for: US)

LEONARDSSON Irene, Kaprifolvagen 2, S-459 32 Ljungskile, SE, SE
(Residence), SE (Nationality), (Designated only for: US)

TENERBERG Susann, Andviken PL 1639, S-430 63 Hindas, SE, SE (Residence),
SE (Nationality), (Designated only for: US)

ANGSTROM Jonas, De Geersgatan 12, S-416 57 Goteborg, SE, SE (Residence),
SE (Nationality), (Designated only for: US)

Legal Representative:

AWAPATENT AB (agent), P.O. Box 11394, S-404 28 Goteborg, SE,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200143751 A1 20010621 (WO 0143751)

Application: WO 2000SE2567 20001215 (PCT/WO SE0002567)

Priority Application: SE 994581 19991215

Designated States: AE AG AL AM AT AT (utility model) AU AZ BA BB BG BR BY
BZ CA CH CN CR CU CZ CZ (utility model) DE DE (utility model) DK DK
(utility model) DM DZ EE EE (utility model) ES FI FI (utility model) GB
GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA
MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SK (utility model)
SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR

((OAPI utility model)) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English

Filing Language: English

Fulltext Word Count: 17972

...called IGFBP-1 in a vaginal secretion sample. If 'two different label concentrations of a **monoclonal** antibody against IGFBP-1 are used in the same test, it is possible to detect...

...to show the presence of antibodies connected to infections, such as IgG class antibodies against **Helicobacter pylori** in serum. Said bacteria have been found to be an important etiologic factor in gastric...

2/6,KWIC/33 (Item 1 from file: 654)

DIALOG(R) File 654:(c) Format only 2004 The Dialog Corp. All rts. reserv.

0005636683 **IMAGE Available

Novel helicobacter pylori-binding substances and use thereof

Fulltext Word Count: 20728

Number of Claims: 72

Exemplary or Independent Claim Number(s):

1,2,3,4,7,15,16,17,19,20,21,22,23,24,27,28,29,30,31,34,35,36,45,49,50,51,56,57,58,68,71,72

Number of Drawing Sheets: 13

Number of Figures: 13

Summary of the Invention:

...0022] Due to limited access to human gastric tissue, the inventors initially concentrated on the **Helicobacter pylori** -binding glycosphingolipid detected in human meconium, which is the first sterile faeces of the newborn and consists mainly of extruded mucosal cells from the developing gastrointestinal tract. After isolation, this **Helicobacter pylori** -binding glycosphingolipid was characterised by mass spectrometry, proton NMR spectroscopy and methylation analysis as Gal...report, was obtained by antrectomy due to duodenal or gastric ulcer. Immunohistochemical studies, using the **monoclonal** antibody K-21, demonstrated a selective expression of the Gal[small beta, Greek]3GlcNAc-sequence...

...human gastric mucosa (foveolar epithelium) of non-secretor individuals (59), coinciding with the localisation of **Helicobacter pylori** -binding to tissue sections (8, 9). An immunohistochemical study, utilising polyclonal antibodies binding to the...

2/6,KWIC/34 (Item 2 from file: 654)

DIALOG(R) File 654:(c) Format only 2004 The Dialog Corp. All rts. reserv.

0005535144 **IMAGE Available

Derwent Accession: 2003-029926

Identification of essential genes in microorganisms

Fulltext Word Count: 166872

Number of Claims: 106

Exemplary or Independent Claim Number(s):

1,2,5,27,28,33,34,40,42,85,86,91,92,97,99,100

Number of Drawing Sheets: 22

Number of Figures: 22

Description of the Invention:

...significant sequence similarity or identity to either characterized or predicted Escherichia coli, Staphylococcus aureus, Enterococcus faecalis, Klebsiella pneumoniae, Pseudomonas aeruginosa, and Salmonella typhimurium genes or their encoded proteins and/or homologues Chlamydia pneumoniae, Chlamydia trachomatis, Clostridium tetani, Corynebacterium diphtheria, Deinococcus radiodurans, Haemophilus influenzae, **Helicobacter pylori** 26695, **Helicobacter pylori** J99, Methanobacterium thermoautotrophicum, Methanococcus jannaschii, Mycobacterium tuberculosis, Mycoplasma genitalium, Mycoplasma pneumoniae, Pseudomonas

00351219

**MULTIMERIC, RECOMBINANT UREASE VACCINE
VACCIN D'UREASE RECOMBINANTE ET MULTIMERE**

Patent Applicant/Assignee:

ORAVAX INC,

Inventor(s):

LEE Cynthia K,
MONATH Thomas P,
ACKERMAN Samuel K,
THOMAS William D Jr,
SOMAN Gopalan,
KLEANTHOS Harold,
WELTZIN Richard A,
PAPPO Jacques,
ERMAK Thomas,
GUIRAKHOO Farshad,
BHAGAT Hitesh,
SUSSMAN Ilene,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9633732 A1 19961031

Application: WO 96US5800 19960425 (PCT/WO US9605800)

Priority Application: US 95431041 19950428; US 95568122 19951206

Designated States: AL AM AT AU AZ BB BG BR BY CA CH CN CZ DE DK EE ES FI GB

GE HU IS JP KE KG KP KR KZ LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL

PT RO RU SD SE SG SI SK TJ TM TR TT UA UG UZ VN KE LS MW SD SZ UG AM AZ

BY KG KZ MD RU TJ TM AT BE CH DE DK ES FI FR GB GR IE IT LU MC NL PT SE

BF BJ CF CG CI CM GA GN ML MR NE SN TD TG

Publication Language: English

Fulltext Word Count: 19156

Fulltext Word Count: 22766
Publication Year: 1996

Fulltext Availability:
Detailed Description

Detailed Description

... antigen specific for hepatitis.

Antibodies that can be assayed include antibodies to bacteria such as **Helicobacter pylori** and to viruses, including HIV. Haptens detectable include haptens to which antibodies of sufficient specificity...

...The detection of human hemoglobin is clinically significant, because the presence of human hemoglobin in **fecal** material is a marker of intestinal or rectal bleeding, which is indicative of the presence... epitopes on the analyte, but this is not required. The antibodies can be polyclonal or **monoclonal**, and can be IgG, IgM or IgA. In many applications, polyclonal antibodies are preferred, as...

2/6,KWIC/29 (Item 22 from file: 349)
DIALOG(R) File 349:(c) 2004 WIPO/Univentio. All rts. reserv.

00351219

MULTIMERIC, RECOMBINANT UREASE VACCINE
VACCIN D'UREASE RECOMBINANTE ET MULTIMERE

Publication Language: English

Fulltext Availability:
Detailed Description
Claims

Fulltext Word Count: 19156
Publication Year: 1996

Fulltext Availability:
Detailed Description

Detailed Description

... although only one of six had a reduced bacterial score.

The role of antibodies in **Helicobacter** therapy
The role of anti-urease antibodies in **Helicobacter** therapy, i.e., the clearance of H. fells from infected mice, was examined by first...
...intervals.

Animals were sacrificed 4 and 10 weeks after the last immunization, and serum and **fecal** samples were collected for ELISA.

Mice infected with H. fells produced serum anti@ urease IgG...

...urease responses, which correlated with clearance of the He felis infection.

Correlation Of protection against **Helicobacter** infection with gastric immune responses
Several of the experiments using the mouse infection model showed...

...urease vaccine
lacked detectable antibody responses, or had low antibody levels, in serum, saliva, or **feces**. Thus, the immune response was measured in the ...were fixed in cold acetone, and IgA-positive cells were identified by staining with biotinylated **monoclonal** anti-IgA, followed by avidin conjugated to biotinylated glucose oxidase

00458850

ANTIGENIC COMPOSITION AND METHOD OF DETECTION FOR i(HELICOBACTER PYLORI)
COMPOSITION ANTIGENIQUE ET METHODE DE DETECTION D'i(HELICOBACTER PYLORI)

Patent Applicant/Assignee:

GENELABS TECHNOLOGIES INC,

Inventor(s):

CHOW Theresa P,

FRY Kirk E,

LIM Moon Y,

MCATEE C P,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9849314 A2 19981105

Application: WO 98US8487 19980425 (PCT/WO US9808487)

Priority Application: US 9745107 19970425; US 9761958 19971014

Designated States: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES

FI GB GE GH GM GW HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD

MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG UZ

VN YU ZW GH GM KE LS MW SD SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH

CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN ML

MR NE SN TD TG

Publication Language: English

Fulltext Word Count: 136810

a body fluid, preferably serum, from the subject with an isolated E. **faecalis** antigen, and examining the antigen for the presence of bound antibody. In a specific embodiment...

2/6,KWIC/25 (Item 18 from file: 349)
DIALOG(R)File 349:(c) 2004 WIPO/Univentio. All rts. reserv.

00458850

ANTIGENIC COMPOSITION AND METHOD OF DETECTION FOR i(HELICOBACTER PYLORI)
COMPOSITION ANTIGENIQUE ET METHODE DE DETECTION D'i(HELICOBACTER PYLORI)

Publication Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 136810

Publication Year: 1998

Fulltext Availability:

Detailed Description

Detailed Description

... used in several contexts and typically refer to at least partial purification of a H. **pylori** polynucleotide or polypeptide away from unrelated or contaminating components (e.g., serum, cells, proteins, non-H. **pylori** polynucleotides, etc.) by at least one purification or isolation step. Methods and procedures for the...

...e.g., SDS-PAGE, affinity purification of fusion proteins, blotting, and recombinant production of H. **pylori** polypeptides).

An antigen is "specifically immunoreactive" with H. **pylori** positive anti-sera or a biological fluid sample when, under optimal conditions, the antigen binds to antibodies present in the H. **pylori** infected sample but does not bind to antibodies present in the majority (greater than about...

...of fluid samples from subjects who are not or have not been infected with H. **pylori** . "Specifically immunoreactive" antigens may be immunoreactive with **monoclonal** or polyclonal antibodies generated against specific H. **pylori** antigens.

By biological fluid is meant any fluid derived from the body of a inaminal, particularly a human. Representative biological fluids include blood, serum, plasma, urine, **faeces** , mucous, gastric secretions, dental plaques, or saliva.

"Inimunologically effective amount" refers to an amount administered...

...part of a series, that is effective for treatment or prevention of infection by H. **pylori** . The amount will vary depending upon the health and physical condition of the subject to...

...invention is based on the identification and isolation of a number of highly immunogenic H. **pylori** polypeptides, resulting from the screening of over a million individual H.

pylori compositions. The antigens of the present invention were either produced recombinantly, or, were separated from a mixture of soluble proteins obtained from pelleted and lysed H. **pylori** .

Moreover, as a result of an intensive computational analysis effort, disparate sequence information corresponding to...producing polyclonal antibodies.

Alternatively, purified antigen or fused antigen protein may be used for producing **monoclonal** antibodies. Here the spleen or lymphocytes from an immunized animal are removed and immortalized or used to prepare **hybridomas** by methods known to those skilled in the art. To produce a

human-derived **hybridoma**, a human lymphocyte donor is selected. A donor known to be infected with a H.

pylori may serve as a suitable lymphocyte donor. Lymphocytes can be isolated from a peripheral blood...

...immortalize human lymphocytes or a suitable fusion partner can be used to produce human-derived **hybridomas**. Primary in vitro sensitization with viral specific polypeptides can also be used in the generation of human **monoclonal** antibodies.

Antibodies secreted by the immortalized cells are screened to determine the clones that secrete...

...by using the ELISA or Western blot method (Ausubel et al., 1988).

Purified polyclonal or **monoclonal** antibodies directed against H. **pylori** antigens can then be used in any of a number of standard immunoassay formats to...

...sandwich assay. In a typical sandwich assay, antibody is immobilized on a solid support. H. **pylori** infected samples (e.g., **feces**, dental plaque, gastric biopsies, culture suspension from a biopsy sample) are then allowed to react with the immobilized antibodies, followed by incubation with a different antibody directed against H. **pylori** (e.g., whole lysate) and subsequent reaction with a secondary antibody carrying a reporter label. Detection of label in a testing region is indicative of the presence of H.

pylori antigen in a test sample. The above-described assay is representative of any of an...

...assay based on antibodies prepared as described above, useful for the early detection of H. **pylori** antigens in a sample suspected of infection by H. **pylori**.

5. ELISA and Protein Blot Screening

H. **pylori** antigens ...previously described). The antigens are then screened rapidly against a large number of suspected H. **pylori** positive anti-sera using alternative immunoassays, such as, ELISAs or Protein Blot Assays (Western blots...

2/6,KWIC/26 (Item 19 from file: 349)

DIALOG(R) File 349:(c) 2004 WIPO/Univentio. All rts. reserv.

00442605

OPPOSABLE-ELEMENT ASSAY DEVICE EMPLOYING UNIDIRECTIONAL FLOW

DISPOSITIF DE DOSAGE A COMPOSANTS OPPOSABLES FONCTIONNANT AVEC UN FLUX UNIDIRECTIONNEL

Publication Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 19778

Publication Year: 1998

Fulltext Availability:

Detailed Description

Detailed Description

... antigen specific for hepatitis. Antibodies that can be assayed include antibodies to bacteria such as **Helicobacter pylori** and to viruses including HIV. Haptens detectable include haptens to which antibodies of sufficient specificity...

...The detection of human hemoglobin is clinically significant, because the presence of human hemoglobin in **fecal** material is a marker of intestinal or rectal bleeding, which is indicative of the presence...

00525926

IMMUNIZATION AGAINST AND TREATMENT FOR INFECTION BY i(H.PYLORI)
IMMUNISATION ET TRAITEMENT ANTI-INFECTIEUX

Patent Applicant/Assignee:

CHIRON S P A,
DEL GIUDICE Giuseppe,
RAPPUOLI Rino,

Inventor(s):

DEL GIUDICE Giuseppe,
RAPPUOLI Rino,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9957278 A2 19991111

Application: WO 99IB851 19990430 (PCT/WO IB9900851)

Priority Application: GB 989398 19980430; GB 9820976 19980925

Designated States: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE
ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT
LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT
UA UG US UZ VN YU ZA ZW GH GM KE LS MW SD SL SZ UG ZW AM AZ BY KG KZ MD
RU TJ TM AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF
CG CI CM GA GN GW ML MR NE SN TD TG

Publication Language: English

Fulltext Word Count: 7410

Monoclonal antibodies for analysis of the HLA system. Immunol. Rev.,
47, 3 Cattaneo, C; Craig, OE...
...Lantz, PG; Matsson, M; Wadstrom, T; Radstrom, P (1997). Removal of PCR
inhibitors from human **faecal** samples through the use of an aqueous
two-phase system
for sample preparation prior to...
...Vidal, R; Cabrita, J; Megraud, F (1997). Complex polysaccharides as
PCR inhibitors in **feces** : **Helicobacter**
pylori model. J. Clin. Microbiol., 35, 995
Saiki, R; Gelfand, D; Stoffel, S; Scharf, S...

2/6,KWIC/21 (Item 14 from file: 349)
DIALOG(R)File 349:(c) 2004 WIPO/Univentio. All rts. reserv.

00568779

COMPOSITIONS AND METHODS FOR REGULATING BACTERIAL PATHOGENESIS
COMPOSITIONS ET METHODES DE REGULATION DE LA PATHOGENESE BACTERIENNE

Publication Language: English

Filing Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 35856

Publication Year: 2000

Fulltext Availability:

Claims

Claim 1

... wherein the antibody is
polyclonal.

80 The method of claim 78, wherein the antibody is
monoclonal.

81 The method of claim 76, wherein the probe is detectably
labeled.

82 The method...

...vibrio parahaemolyticus, Vibrio
alginolyticus, Pseudomonas phosphoreum, Yersinia
enterocolitica, Escherichia coli, Salmonella typhimurium,
Haemophilus influenzae, **Helicobacter pylori**, Bacillus
subtilis, Borrelia burgdorferi, Neisseria meningitidis,
Neisseria gonorrhoeae, Yersinia pestis, Campylobacter
jejuni, Deinococcus radiodurans, Mycobacterium
tuberculosis, Enterococcus faecalis, Streptococcus
pneumoniae, Streptococcus pyogenes and Staphylococcus
aureus.

83 A method for detecting a target compound...

2/6,KWIC/22 (Item 15 from file: 349)
DIALOG(R)File 349:(c) 2004 WIPO/Univentio. All rts. reserv.

00525926

IMMUNIZATION AGAINST AND TREATMENT FOR INFECTION BY **H. PYLORI**
IMMUNISATION ET TRAITEMENT ANTI-INFECTIEUX

Publication Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 7410

Publication Year: 1999

Fulltext Availability:
Detailed Description

Detailed Description

... normal glandular structure. Fig. 10B shows a strong positivity at immunohistochemistry using an anti-VacA **monoclonal** antibody.

Conclusions. Taken together these data show that Lin. immunization with H. pylori antigens can...

...23

24 +

ELCperimental

Rpylori strains. SPM326s, a streptomycin-resistant derivative of the mouse-adapted H. **pylori** Type I (CagA+NacA+) strain SPM326 (Marchetti et al., 1995), was grown as previously described (Marchetti et al., 1995) and used to challenge the dogs. The CCUG strain of **Hpylori** is well known in the art.

Animals. Six 4-6 months-old xenobiotic beagle dogs...

...Enza, Italy), were selected on the basis of the absence of detectable serum IgG against **Helicobacter** spp. in Western blot (V;B) analysis using total bacterial lysate as antigen (see below...

...libitum. Upon arrival in our animal facilities, an additional VVB analysis on sera confirmed their **Hpylori** status. The dogs were housed in individual cages and allowed to adapt for a month to the new environment.

During the month of adaptation, two tests were carried out on **fecal** samples to assess the presence of intestinal parasites or common enteric pathogenic bacteria.

1 5 Preparation of Rpylori lysate. Two pellets of **Hpylori** CCUG strain from two 5 liter fermenters (Olivieri, R., et al. 1993. J. Clin. Microbiol...use.

Immunization. Three dogs were immunized on day 0 intramuscularly (i.m.) with the prepared **Hpylori** lysate (the equivalent of 1010 CFU Hpylori (= 28 mg/dose)) adsorbed onto 1 mg aluminium...

2/6,KWIC/23 (Item 16 from file: 349)

DIALOG(R)File 349:(c) 2004 WIPO/Univentio. All rts. reserv.

00504555

XENOBIOTIC ANIMAL MODEL OF H. PYLORI INFECTION

MODELE

Publication Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 10359

Publication Year: 1999

Fulltext Availability:

Detailed Description

Detailed Description

... mucous layer (Fig. 6D).

All these data were confirmed by immunohistochemistry using an anti-VacA **monoclonal** antibody, which heavily stained epithelial cells of infected dogs (Fig.

7B, arrows), but not those...

...i.m. immunization with

H. pylori lysate can protect dogs against challenge with infectious H.

00881428

Immunoassay for H. pylori in fecal specimens

Immunoassay für H. pylori in Fäkalienproben

Essais immunologiques pour H. pylori en épreuves de feces

PATENT ASSIGNEE:

MERIDIAN BIOSCIENCE, INC., (640711), 3471 River Hills Drive, Cincinnati,
Ohio 45244, (US), (Proprietor designated states: all)

INVENTOR:

Larka, Christopher Vance, 478 Piccadilly Square, APT. C, Cincinnati, Ohio
45255, (US)

Yi, Chung Sui Arthur, 3078 Williams Creek Drive, Cincinnati, Ohio 45244,
(US)

Kozak, Kenneth James, 1869 Muskegon Drive, Cincinnati, Ohio 45255, (US)

LEGAL REPRESENTATIVE:

Gowshall, Jonathan Vallance et al (61531), FORRESTER & BOEHMERT

Pettenkoferstrasse 20-22, 80336 München, (DE)

PATENT (CC, No, Kind, Date): EP 806667 A1 971112 (Basic)

EP 806667 B1 020102

APPLICATION (CC, No, Date): EP 97303147 970508;

PRIORITY (CC, No, Date): US 647115 960509

DESIGNATED STATES: AT; BE; CH; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI; LU;
MC; NL; PT; SE

INTERNATIONAL PATENT CLASS: G01N-033/569; G01N-033/541; G01N-033/535;
A61K-039/106

ABSTRACT WORD COUNT: 126

LANGUAGE (Publication,Procedural,Application): English; English; English

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	199711W1	600
CLAIMS B	(English)	200201	602
CLAIMS B	(German)	200201	629
CLAIMS B	(French)	200201	717
SPEC A	(English)	199711W1	3407
SPEC B	(English)	200201	3493
Total word count - document A			4008
Total word count - document B			5441
Total word count - documents A + B			9449

Total word count - document B 0
Total word count - documents A + B 11462

...SPECIFICATION the judgment should be carried out based on the combination of a test for anti- **Helicobacter pylori** antibodies in blood and the diagnosis about an occurrence.

However, these test methods for...

...nutritional deficiency and oxygen deficiency.

On the other hand, as regards direct detection of **Helicobacter pylori** from feces by an immunological method based on the antigen-antibody reaction, there is a report about the detection of **Helicobacter pylori** in excreta specimens, such as feces, by an immunoassay using polyclonal antibodies against **Helicobacter pylori** (J. Clin. Microbiol., vol. 33, 2162-2165, 1995; Japanese Kokai Publication Hei-10-10128 (JP...

...the quality control. In actuality, as regards the kit "HpSA" for detecting the antigen of **Helicobacter pylori** in feces, which is a product of Meridian, the patentee of JP No. 3043999, and in which...

...Kokai Publication Hei-10-10128, it is described to the effect that since strains of **Helicobacter pylori** are susceptible to mutation, monoclonal antibodies capable of reacting only with respective individual antigens are not suited for use in detecting **Helicobacter pylori** but polyclonal antibodies, which can react with various antigens or epitopes, are rather suited for the detection of **Helicobacter pylori**.

SUMMARY OF THE INVENTION

In view of the above state of the art, it is an object of the present invention to provide a diagnostic method by which **Helicobacter pylori** infection can be diagnosed at low cost ...immunological assay method of the invention is preferably carried out using any one of the monoclonal antibody species mentioned above.

The immunological assay method of the invention is preferably used for ...1991), 137, 57-61).

Therefore, base on the above results, the protein detected by the monoclonal antibody 21G2, monoclonal antibody 41A5 and monoclonal antibody 82B9 was identified as **Helicobacter pylori** catalase...view of the foregoing, it was revealed that the feces of persons infected with **Helicobacter pylori** contain native catalase having four subunits and catalase activity. It has been quite unexpected that **Helicobacter pylori** catalase is not digested in the digestive tract but is excreted in the form of...

...react with a protein corresponding to each disentangled subunit obtainable by denaturation and dissociation of **Helicobacter pylori** catalase by SDS-PAGE. However, it is not clear whether these monoclonal antibodies react with native catalase retaining the steric structure and having activity or whether they can detect **Helicobacter pylori** in excreta specimens, such as feces.

On the contrary, the monoclonal antibody of the present invention makes it possible to recognize the occurrence or nonoccurrence of **Helicobacter pylori** infection using digestive tract excreta, such as feces, which can be collected with ease, as specimens.

The field of application of the monoclonal...

...is not particularly restricted but can be used, in immunological assays, for making judgment about **Helicobacter pylori** infection.

The immunological assay method of the present invention is carried out using at least...

...and high in background noise.

It is known, however, that there are various mutants of **Helicobacter pylori**. Therefore, it has been considered that it would be very difficult to detect the infection...

...occurrence of a bacterial species having a variety of antigens. Further, a method of detecting **Helicobacter pylori** using a plurality of monoclonal antibodies has been disclosed (WO 00/26671). However, any...

...invention can detect *Helicobacter pylori* with very high accuracy using a single antibody species.

The **monoclonal** antibodies described in WO 00/26671 recognize urease, heat shock proteins, alkaline hydroperoxidase reductase, 20...a system by which the color development or the like in the case of positive *Helicobacter pylori* infection can be confirmed by visual observation can easily be established.

The specimen to be...for example, gastric contents, gastric washings, and digestive tract excreta. Digestive tract excreta, such as **feces**, are preferred, however, since they can easily be collected without imposing any burden on subjects...

...other substances occurring in the specimen can be eliminated by using the monoclonal antibody recognizing *Helicobacter pylori* catalase as an antigen, so that the occurrence of *Helicobacter pylori* can be detected with very high sensitivity and specificity. Since the hybridoma which produces a **monoclonal** antibody against *Helicobacter pylori* catalase have been established, it is now possible to produce the same **monoclonal** antibody almost semi-permanently. The diagnosis kit in which the **monoclonal** antibody of the present invention is used can use digestive tract excreta as specimens, so that *Helicobacter pylori* infection can be detected in a simple and easy manner and efficiently without causing any pain on subjects. Further, in cases where only one **monoclonal** antibody species is used, the diagnosis kit of the invention in which the **monoclonal** antibody of the present invention is used can stably attain very high accuracy without any...

...are, however, by no means limitative of the scope of the present invention.

Example 1

(**Monoclonal** antibody production)

(1) Preparation of a *Helicobacter pylori* coccoid cell suspension (immunogen)

Brain heart infusion...20 minutes, and the sediment was suspended in 2 mL of PBS and dialyzed. These **monoclonal** antibodies were immobilized on 96-well ELISA plates in the following manner. Thus, each monoclonal...

...to give the biotin-labeled monoclonal antibody.

(3) Selection of monoclonal antibodies specifically recognizing *Helicobacter pylori* in digestive tract excreta

Feces specimens, 250 mg each, from one person judged as *Helicobacter pylori* positive and one person judged as negative by the urea breath test were each suspended...

...3,000 rpm for 10 minutes, and the supernatant thus separated was used as a **fecal** extract. 0.2 mL of each **fecal** extract was added to each well of the monoclonal antibody-immobilized plate prepared as described...

...and 82B9, used singly or in combination, were found to show high reactivity against the **fecal** specimen of the person infected with *Helicobacter pylori*.

The hybridomas producing the respective monoclonal antibodies have been deposited with the National Institute of...

...Technology, Agency of Industrial Science and Technology under the designations hybridoma 21G2 (FERM BP-7336), **hybridoma** 41A5 (FERM BP-7337) and **hybridoma** 82B9 (FERM BP-7338). The immunoglobulin subclass of each **monoclonal** antibody was checked using an immunoglobulin typing kit mouse (product of Wako Pure Chemical Industries...

...Example 3

(Reactivity comparison among strains and reactivity with other bacterial species)

(1) Preparation of *Helicobacter pylori* cell suspensions

Brain heart infusion agar medium supplemented with 5% equine

defibrinated blood was streaked with each of **Helicobacter pylori** strains (ATCC 43504; Tokai University Hospital clinical isolates No. 130 and No. 112; Hyogo Medical...

...X g at 4(degree)C, and then again suspended in PBS. Thus were obtained **Helicobacter pylori** helical cell suspensions and coccoid cell suspensions.

(2) Preparation of human enterobacterial and Campylobacter...found to show high reactivity against helical cells and coccoid cells of each of **Helicobacter pylori** strains. On the other hand, they did not react at all with *Bacteroides vulgatus*, *Escherichia coli*, *Campylobacter jejuni*, **Helicobacter felis** or **Helicobacter hepaticus**. On the contrary, Meridian's HpSA showed reactivity against **Helicobacter felis** and **Helicobacter hepaticus** as well.

Example 4

(Detection of **Helicobacter pylori** in fecal specimens by sandwich ELISA (1))

Feces specimens (each 250 mg) from three persons judged as **Helicobacter pylori** positive and three persons judged as negative by the urea breath test were each suspended...

...each suspension was tested in the same manner as in Example 2 (3). The same fecal specimens were also subjected to the test using Meridian's HpSA ELISA according to the...

...The respective absorbance values and urea breath test results are shown in Table 3.

The fecal specimens provided by the subjects (No. 4, 5, 6) whose urea breath test results were...

...values as compared with the negative specimens (No. 1, 2, 3).

Example 5

(Detection of **Helicobacter pylori** in fecal specimens by sandwich ELISA (2))

(1) Monoclonal antibody preparation

The ascitic fluid (5...

...Chemistry", vol. 27, Enzyme labeling techniques, p. 51, published 1991 by Gakkai Shuppan Center). The monoclonal antibody (5 mg) prepared in (1) was mixed with 0.6 mg of S-acetylmercaptosuccinic...

...mM EDTA-0.1 M phosphate buffer (pH 6.5), whereby the thiol group-introduced monoclonal antibody.

Peroxidase (5 mg, horseradish, product of Toyobo) was mixed with 1 mg of N...

...and a fraction containing the peroxidase-labeled monoclonal antibody was collected.

(4) Detection of **Helicobacter pylori** in fecal specimens by sandwich ELISA

Feces specimens (each 250 mg) from ten persons judged as **Helicobacter pylori** positive and ten persons judged as negative by the urea breath test were each suspended...

...3,000 rpm for 10 minutes, and the supernatant thus obtained was used as a fecal extract. 50 (mu)L of each fecal extract and 50 (mu)L of the peroxidase-labeled monoclonal antibody prepared in (3) were...acid to each well, and the absorbance (450 nm-630 nm) was measured. The same fecal specimens were tested using HpSA and the absorbance (450 nm-630 nm) was measured. The...

...4, the sandwich ELISA using the monoclonal antibody 21G2 singly showed high reactivity with the fecal specimens from persons infected with

140177691 CA: 140(12)177691m JOURNAL

Evaluation of a novel monoclonal enzyme immunoassay for detection of
Helicobacter pylori antigen in stool from children

AUTHOR(S): Koletzko, S.; Konstantopoulos, N.; Bosman, D.; Feydt-Schmidt,
A.; van der Ende, A.; Kalach, N.; Raymond, J.; Ruessmann, H.

LOCATION: Kinderklinik & Kinderpoliklinik Dr. v Haunersches, Munich,
Germany, D-80336

JOURNAL: Gut (Gut) DATE: 2003 VOLUME: 52 NUMBER: 6 PAGES: 804-806

CODEN: GUTTAK ISSN: 0017-5749 LANGUAGE: English PUBLISHER: BMJ
Publishing Group

...antibodies could be used as an alternative to using a polyclonal antibody. H. pylori specific **monoclonal** antibodies can be obtained. H. pylori cells from ATCC strain 43504 have been found to...assay involves the step wise addition first of a solution of labeled antibody to the **fecal** specimen followed by the addition of the unlabeled antibody bound to the support. After a second...

...unreacted labeled antibody.

So-called triple sandwich assays can also be used for detecting H. pylori in **fecal** specimens in accordance with the invention. Triple assays are known in the art and the basic methodology can be applied to the detection of H. pylori in **fecal** specimens. A triple assay is typically conducted by dispersing a **fecal** specimen suspected of carrying H. pylori in a sample diluent which minimizes cross-reactivity and adding the diluted sample to an immobilized genus specific **monoclonal** antibody. The sample is incubated to form the antibody-antigen complex. After washing excess specimen from the immobilized support, an H. pylori specific antibody known as a primary antibody and obtained from a species of an antibody...

...CLAIMS A1

1. A process for the determination of H. pylori in a fecal specimen which comprises:

(a) dispersing a fecal specimen in a sample diluent...

...for the determination of H. pylori in a fecal specimen which comprises:

(a) dispersing a **fecal** specimen in a diluent;

(b) contacting the **fecal** specimen in the diluent with a first antibody reactive with H. pylori antigen bound to...

...said complex;

(d) detecting the labeled antibody and in turn determining the presence of H. pylori antigen in said **fecal** specimen.

12. A process for the determination of H. pylori in a **fecal** specimen which comprises:

(a) dispersing a **fecal** specimen in a sample diluent; (b) contacting the **fecal** specimen in the diluent with a **Helicobacter** or **Camplobacter** genus specific monoclonal antibody bound to a solid carrier to form a complex...

...contacting the antibody-antigen complex formed in step (b) with a primary antibody for H. pylori antigen obtained from an antibody-producing species to produce an antibody-antigen-antibody complex;

(e...

...a complex with said antibody-antigen-antibody complex; and

(g) determining the presence of H. pylori antigen in said **fecal** specimen.

13. A kit for the determination of H. pylori in a **fecal** specimen including a plate of wells having bound thereto a genus specific monoclonal antibody for H. pylori antigen, a protein-based sample diluent and a plurality of labeled antibodies for H. pylori antigen.

2/6,KWIC/50 (Item 4 from file: 348)

DIALOG(R)File 348:(c) 2004 European Patent Office. All rts. reserv.

01298576

MONOCLONAL ANTIBODY, HYBRIDOMA, IMMUNOASSAY METHOD AND DIAGNOSIS KIT
MONOKLONALER ANTIKORPER, HYBRIDOMA, IMMUNTESTVERFAHREN UND DIAGNOSEKIT
ANTICORPS MONOCLONAL, HYBRIDOME, IMMUNOESSAI ET NECESSAIRE A DIAGNOSTIC
LANGUAGE (Publication,Procedural,Application): English; English; Japanese
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	200231	298
SPEC A	(English)	200231	11164
Total word count - document A			11462

Reconnected in file OS 27may04 11:30:39
 * ALL NEW CURRENT YEAR RANGES HAVE BEEN * * *
 * * * INSTALLED * * *
 *

SYSTEM:OS - DIALOG OneSearch

File 155:MEDLINE(R) 1966-2004/May W4
 (c) format only 2004 The Dialog Corp.
 *File 155: Medline has been reloaded. Accession numbers have changed. Please see HELP NEWS 154 for details.
 File 349:PCT FULLTEXT 1979-2002/UB=20040520,UT=20040513
 (c) 2004 WIPO/Univentio
 File 654:US Pat.Full. 1976-2004/May 25
 (c) Format only 2004 The Dialog Corp.
 *File 654: US published applications now online. See HELP NEWS 654 for details. Reassignments current through December 2, 2003.
 File 440:Current Contents Search(R) 1990-2004/May 27
 (c) 2004 Inst for Sci Info
 File 348:EUROPEAN PATENTS 1978-2004/May W03
 (c) 2004 European Patent Office
 File 357:Derwent Biotech Res. 1982-2004/May W4
 (c) 2004 Thomson Derwent & ISI
 File 399:CA SEARCH(R) 1967-2004/UD=14022
 (c) 2004 American Chemical Society
 *File 399: Use is subject to the terms of your user/customer agreement. Alert feature enhanced for multiple files, etc. See HELP ALERT.
 File 34:SciSearch(R) Cited Ref Sci 1990-2004/May W4
 (c) 2004 Inst for Sci Info
 File 636:Gale Group Newsletter DB(TM) 1987-2004/May 27
 (c) 2004 The Gale Group
 File 347:JAPIO Nov 1976-2004/Jan(Updated 040506)
 (c) 2004 JPO & JAPIO
 *File 347: JAPIO data problems with year 2000 records are now fixed. Alerts have been run. See HELP NEWS 347 for details.
 File 345:Inpadoc/Fam.& Legal Stat 1968-2004/UD=200420
 (c) 2004 EPO
 *File 345: October 12, 2003 - changes to legal status now online. See HELP NEWS 345 for details.
 File 342:Derwent Patents Citation Indx 1978-04/200428
 (c) 2004 Thomson Derwent
 File 340:CLAIMS(R)/US Patent 1950-04/May 25
 (c) 2004 IFI/CLAIMS(R)
 *File 340: Annual reload and classification updates delayed due to Dialog processing issues.
 File 167:Medical Device Register (R) 1999
 (c) 1998 Medical Economics
 *File 167: This file is closed (no updates)
 File 148:Gale Group Trade & Industry DB 1976-2004/May 27
 (c)2004 The Gale Group
 *File 148: Alert feature enhanced for multiple files, duplicate removal, customized scheduling. See HELP ALERT.
 File 50:CAB Abstracts 1972-2004/Apr
 (c) 2004 CAB International
 File 35:Dissertation Abs Online 1861-2004/Apr
 (c) 2004 ProQuest Info&Learning
 File 5:Biosis Previews(R) 1969-2004/May W4
 (c) 2004 BIOSIS
 File 73:EMBASE 1974-2004/May W4
 (c) 2004 Elsevier Science B.V.

Set Items Description

--- -----

Cost is in DialUnits
 ?ds

Set	Items	Description
S1	93	(HELICOBACTER? OR PYLORI OR HPYLORI) (100N) (FECAL? OR FECES? OR EXCREMENT? OR FAECAL? OR FAECES?) (100N) (MONOCLONAL? - OR MAB OR MOAB OR HYBRIDOMA?)

S2 70 RD (unique items)
?t s2/9/68 69

2/9/68 (Item 1 from file: 167)
DIALOG(R) File 167: Medical Device Register (R)
(c) 1998 Medical Economics. All rts. reserv.

00018582 37645

MEDIX BIOCHEMICA AB, OY
Asematie 13
Kauniainen FIN-02700
Finland

TELEPHONE: 9/547-680
FAX: 9/505-3441
EMAIL: paivi.sormunen@medixbiochemica.com
WEB PAGE: www.jns.fi/medixbiochemica
CONTACT: Paivi Sormuen / Dir. Mktg.

BRAND NAME: ACTIM

COMPANY REVENUE: \$5-\$10 Million

MEDICAL DEVICE SALES

VOLUME: \$0.00
TOTAL EMPLOYEES: 81
SALES STAFF: 10
MARKETING STAFF: 0

PARENT: MEDIX LTD.
TYPE OF OWNERSHIP: PRIVATE
DISTRIBUTION TYPE: Manufacturer Direct
FEDERAL PROCUREMENT
ELIGIBILITY: N/A
CONTRACT TYPE: N/A
ISO/CEMARK TYPE: ISO 9001

MANAGEMENT:

General Admin.: Kouvonen, Ilkka / President
Mktg./Adv.: Sormuen, Paivi / Dir. Mktg.

PRODUCT NAME -- MEDICAL SPECIALTY NAME -- NOTES

Enzyme Linked Immunoabsorbent Assay, Chlamydia Group -- MICROBIOLOGY --
Chlamydia trachomatis, human Borrelia burgdorferi, **Helicobacter pylori**.

Hemoglobin -- CARDIOVASCULAR

Enzyme Immunoassay, Other -- CHEMISTRY -- Enzyme conjugates.

Tray, Micro (Mic Plate) -- MICROBIOLOGY -- Coated microwell
plates/strips.

Antibody, **Monoclonal** -- MICROBIOLOGY -- **Monoclonal** antibodies: HCG,
hAFP, hLH, hTSH, hPRL, hGH, hCEA, Alpha Subunit of hLH, HCG, Pancreatic
Amylase, Salivary Amylase, IGFBP-1, hCRP, hSHBG, hAlbumin, T4
hMyoglobin, trypsinogen-2, human ferritin, human C-peptide. Bulk
production. Pepsogen I, Pepsogen II, IgA, IgM, CK-MB, PSA,
Enzymatic Method, Blood, Occcult, **Fecal** -- CHEMISTRY

2/9/69 (Item 1 from file: 148)
DIALOG(R) File 148: Gale Group Trade & Industry DB
(c)2004 The Gale Group. All rts. reserv.

06798890 SUPPLIER NUMBER: 14410406 (THIS IS THE FULL TEXT)

**The response of cells from low-grade B-cell gastric lymphomas of
mucosa-associated lymphoid tissue to Helicobacter pylori.**

Hussell, Tracy; Isaacson, Peter G.; Crabtree, Jean E.; Spencer, Jo
Lancet, v342, n8871, p571(4)
Sept 4, 1993

ISSN: 0099-5355

LANGUAGE: ENGLISH

RECORD TYPE: FULLTEXT; ABSTRACT

ABSTRACT: *Helicobacter pylori* (*H. pylori*) may cause an immune response that stimulates the proliferation of cells from low-grade B-cell mucosa-associated lymphoid tissue (MALT) lymphoma of the stomach. Almost all patients with gastric (stomach) MALT lymphomas have detectable levels of *H. pylori* in the lining of their stomach. Researchers examined the response of cancer cells from three patients with gastric low-grade B-cell MALT lymphoma to 12 strains of *H. pylori* from patients without lymphoma. Increased production of neoplastic B-cells and non-neoplastic T-cells occurred after exposure to stimulating strains of *H. pylori*. Neoplastic cells are characterized by progressive multiplication under conditions that would not elicit this response in normal cells. Levels of tumor immunoglobulin increased, and more interleukin-2 (IL-2) was released. Most of the cancer cells had more IL-2-receptors in the presence of stimulating strains of *H. pylori*.

AUTHOR ABSTRACT: An association has been shown between colonisation of gastric mucosa by *Helicobacter pylori*, acquisition of mucosa-associated lymphoid tissue (MALT), and occurrence of primary B-cell gastric MALT lymphoma. We investigated the immunological response of cells from 3 low-grade primary B-cell gastric MALT lymphomas to *H. pylori* type NCTC 11637 and 12 isolates of *H. pylori* from patients without lymphomas. After co-culture of tumour cells with bacteria, cells were examined for phenotypic evidence of activation and proliferation, and supernatant assayed to detect tumour-derived immunoglobulin and interleukin-2 (IL-2). Neoplastic B cells and non-neoplastic T cells proliferated, and IL-2-receptor expression by most cells in the cultures was increased with stimulating strains of *H. pylori*. There were also increases in tumour immunoglobulin and IL-2 release when activation and proliferation were seen in response to stimulating bacteria. Removal of T cells from the tumour cell suspension reduced proliferation and IL-2-receptor expression. In comparison, no responses were seen in cells from high-grade gastric MALT lymphomas or low-grade B-cell MALT lymphomas of other sites. The response of low-grade B-cell gastric MALT lymphomas to stimulating strains of *H. pylori* is dependent on *H. pylori*-specific T cells and their products, rather than the bacteria themselves.

TEXT:

Introduction

Acquisition of lymphoid tissue resembling intestinal Peyer's patches (mucosa-associated lymphoid tissue [MALT]) precedes the onset of B-cell lymphomas of MALT type. [1] Gastric MALT lymphoma arises in MALT acquired as a result of *Helicobacter pylori* infection, and the organism can be found in the gastric mucosa in nearly all cases. [2] An accompanying paper [3] shows that eradication of *H. pylori* from patients with low-grade primary gastric B-cell MALT lymphoma results in tumour regression, suggesting that the tumours are directly or indirectly dependent on *H. pylori* stimulation for growth.

We cultured cells from tumours with heat-killed *H. pylori* and measured lymphocyte proliferation and activation. Due to the genomic diversity in *H. pylori* isolates [4] and differences in the expression of cytotoxin [5] and a 120-130 kDa antigen [6] associated with variability in host responses, [7] we studied tumour-cell responses to various cytotoxin-positive and cytotoxin-negative strains.

Materials and methods

Cells and tissues

3 surgically-resected low-grade gastric B-cell MALT lymphomas were studied (cases 1-3); stages [I.sub.E], and [III.sub.E] (in this case, also involving the small bowel, the gastric and intestinal masses have been shown to be clonally related; [8] sufficient cells were available only from the intestinal site). 5 other lymphomas were studied, 4 MALT-type (2 high-grade gastric, 1 low-grade salivary gland, 1 low-grade thyroid) and 1 nodal lymphocytic lymphoma (cases 4-8). *H. pylori* colonisation was seen in all gastric lymphomas. Cells were teased from fresh tissues and stored in liquid nitrogen until required. In some experiments, T cells were depleted from tumour-cell suspensions by rosetting with 2-aminoethyl-isothiuronium-treated sheep erythrocytes for 1 h at 4 [degrees]C.

Bacterial preparations and cultures

Heat-killed whole-cell preparations from *H. pylori* strain NCTC 11637

and 12 clinical isolates (including cytotoxin positive [G27, G32, G33, G39, G65, G74] and negative [G12, G17, G21, G25, G47, G50] strains) were used. *Escherichia coli* NCTC 10418 and *Campylobacter jejuni* NCTC 11168 were controls. Protein contents of the bacterial preparations were measured by a modified Lowry method.[9]

Tumour cells (2 x [10^{sup}.6] viable cells per well) were incubated in 2 mL tissue-culture wells either in RPMI 1640 containing 10% fetal calf serum (Imperial Laboratories, Andover, Hampshire, UK) alone or with the addition of 1-5 [μg] protein per mL of each bacterial strain, which caused maximum proliferation in preliminary experiments with each tumour. As positive controls, B-cell and T-cell activators were used: 20 ng/mL phorbol 12-myristate 13-acetate (TPA), 01 mg/mL lipopolysaccharide from *E coli* (LPS), or 50 [μg/mL] phytohaemagglutinin (PHA) (Sigma). After 5 days of culture, supernatant was taken for measurement of IL-2 secretion and immunoglobulin release. Cells were resuspended and cytocentrifuged directly on to glass slides for evaluation of B-cell and T-cell activation and proliferation. 3 wells were used for each experiment, which was repeated 3 times (except in case 3 which was repeated twice because too few cells were available). Data shown are the mean (SE).

Immunocytochemistry and cellular reactivity

Cellular proliferation and activation were by staining acetone-fixed cytocentrifuge preparations with murine monoclonal antibodies to proliferating cells (Ki67)[10] and IL-2 receptor (CD25),[11] respectively, with the indirect immunoperoxidase technique. B-cell and T-cell proliferation was visualised by double-staining with Ki67 by indirect immunoperoxidase, then with antibodies to either B cells (CD20)[12] or T cells (CD3)[13] and detection with biotinylated rabbit anti-mouse immunoglobulin followed by avidin conjugated to alkaline phosphatase and fast blue substrate (Dako).

As we needed to measure B-cell and T-cell proliferation independently, and study the supernatants, we used immunocytochemical analysis rather than radiolabelled nucleotides. Stimulated cells formed tight clusters in vitro. Preliminary studies with mitogens showed that the number of Ki67+ cells within the clusters was related to the degree of stimulation (data not shown). Where no cluster formation occurred, only rare Ki67+ cells were present. An index of proliferation was therefore determined by counting the number of Ki67+ nuclei in clusters of cells in cytocentrifuged preparations, which was a reflection of the size of the cluster and its activity. The value for each experiment was derived from counts of at least 60 clusters for each of the 3 wells.

Immunoglobulin and IL-2 secretion

Culture supernatants from cases 1-3 were incubated on enzyme-linked immunosorbent assay (ELISA) plates pre-coated with rabbit antibody to human [kappa] and [lambda] immunoglobulin light chains (Dako). For cases 1 and 3, binding was detected with murine anti-idiotypic antibodies specific for the individual tumours,[14] followed by peroxidase-conjugated rabbit anti-mouse immunoglobulin. In case 2, for which no anti-idiotypic was available, binding was assessed with peroxidase-conjugated rabbit anti-human IgM. Reactivity was shown by o-phenylene diamine and the results read at 492 nm on an ELISA reader (Titertek, ICN Biomedicals, High Wycombe, Bucks). IL-2 secretion into the supernatant was measured by ELISA for the quantitative measurement of soluble human IL-2 (T Cell Diagnostics). The sensitivity of the assay was 59 pg/mL.

Results

Cells studied remained mostly single when cultured in medium alone, and many appeared dead or dying.[15] Cells from low-grade lymphomas clustered when incubated with the non-specific B-cell and T-cell activators TPA, LPS, and PHA (figure 1). Little or no response by the high-grade lymphomas was seen. When *H pylori* strains were added to the cells in culture, only the 3 low-grade gastric lymphomas showed substantial proliferative responses, each to a single *H pylori* strain: case 1 to cytotoxin-positive G39, case 2 to cytotoxin-positive NCTC 11637, and case 3 to cytotoxin-negative G50 (figure 2). The proliferative response involved both B and T cells, though the great majority of Ki67+ cells were B cells (figure 1). No response by any other lymphoma studied was seen. None of the tumours studied responded to control bacteria.

Activation of cells in culture in response to *H pylori* strain G39 (case 1), strain NCTC 11637 (case 2), and strain G50 (case 3) was associated with increased expression of CD25 by both B and T cells (figure

3). The same strain-specific differences in the proliferative response and in cellular activation were also seen when immunoglobulin released from the tumour cells was analysed with ELISA to detect immunoglobulin light chain restriction (case 2) or secretion of immunoglobulin recognised by anti-idiotypic antibody (cases 1 and 3) (figure 4). Measurement of IL-2 in the supernatant from cultures of cases 1-3 in a single experiment with duplicate test wells showed that the strain-specific responses observed were associated with secretion of IL-2 in cases 1 (130 pg/mL in response to H pylori G39) and 2 (90 pg/mL in response to H pylori NCTC 11637). No IL-2 was detected in the supernatant from case 3 or in supernatant from any other cultures. When T cells were removed from the cell suspensions from cases 1-3, and remaining cells cultured with strains of H pylori, most cells appeared dead or dying, and all indices of cellular proliferation studied were markedly reduced. (figures 1 and 3).

Discussion

Our results show that cellular proliferation in low-grade B-cell gastric MALT lymphomas can be stimulated by H pylori and, moreover, that this effect is strain specific. Exposure to H pylori had no effect either on low-grade B-cell lymphomas of other sites, or on high-grade gastric lymphomas. Abolition of the B-cell response by removing T cells from the suspensions shows that the B-cell response is secondary to specific activation of T cells by H pylori and the release of cytokines, including IL-2, which drive B-cell activation and proliferation. These findings provide the explanation for our clinical observations that eradication of H pylori causes regression of some low-grade gastric MALT lymphomas. [3]

Case 3, in which the tumour cells were obtained from a small-intestinal focus of disease, is especially interesting. Culturable H pylori can be found in the faeces of some patients with gastritis [16] and, therefore, could still affect the growth of lymphoma in the small intestine. That the growth of low-grade gastric MALT lymphomas partly depends on the presence of H pylori could explain the rarity of extra-abdominal spread in this disease. [17]

In all 3 low-grade gastric MALT lymphomas, co-culture of the tumour cells with H pylori resulted in the release of immunoglobulin. The specificity of this immunoglobulin, in the 2 cases in which it could be studied, is for tissue autoantigens. [14] No cross-reactivity of tumour immunoglobulin with any strains of H pylori was observed, suggesting that the aberrant autoreactive B-cell clone is dependent on the cytokine-rich microenvironment produced by the immune response to H pylori, rather than the bacteria themselves. Cross-linking of the tumour immunoglobulin by binding autoantigens may also be necessary for B-cell proliferation; the autoantigens recognised by the tumours were present in the cell preparations from cases 1 and 3 (data not shown).

Dependence of B-cell proliferation upon locally-activated T cells may have wider significance within the group of MALT-type lymphomas. In MALT lymphomas of the salivary gland and thyroid, for example, microbial agents may precipitate autoimmune disease and provide the setting for MALT lymphoma development, [18] and also stimulate lymphoma growth in a manner similar to H pylori. Other experiments provide evidence for T-cell-dependent B-cell lymphoma progression, suggesting that the importance of T-cell signals in supporting monoclonal B-cell proliferation extends beyond MALT lymphomas. [19,20] If true, this could have far-reaching consequences for the treatment of patients with all types of low-grade B-cell lymphoma.

Reference

[1] Isaacson PG, Spencer J. Malignant lymphoma of mucosa-associated lymphoid tissue. Histopathology 1987; 11: 445-62. [2] Wotherspoon AC, Ortiz-Hidalgo C, Falzon MR, Isaacson PG. Helicobacter pylori-associated gastritis and primary B-cell gastric lymphoma. Lancet 1991; 338: 1175-76. [3] Wotherspoon AC, Doglioni C, Diss TC, et al. Regression of primary low-grade B-cell gastric lymphoma of mucosa-associated lymphoid tissue (MALT) type after eradication of Helicobacter pylori. Lancet 1993; 342: 575-77. [4] Akopyanz N, Bukanov NO, Westblom TU, Berg DE. PCR based analysis of DNA sequence diversity in the gastric pathogen Helicobacter pylori. Nucleic Acids Research 1992; 20: 6221-25. [5] Figura N, Gugliemetti A, Rossolini A, et al. Cytotoxin production by Cambylobacter pylori strains isolated from patients with peptic ulcers and from patients with chronic gastritis only. J Clin Microbiol 1989; 27: 225-26. [6] Caracci A, Censini S, Bugnelli M, et al. Molecular characterisation of the 128 kDa

immunodominant antigen of *Helicobacter pylori* associated with cytotoxicity and duodenal ulcers. *Proc Natl Acad Sci USA* 1993; 90: 5791-95. [7] Crabtree JE, Taylor JD, Wyatt JI, et al. Mucosal IgA recognition of *Helicobacter pylori* 120kDa protein, peptic ulceration, and gastric pathology. *Lancet* 1991; 338: 332-35. [8] Spencer J, Diss T, Isaacson PG. A study of the properties of a low-grade B cell lymphoma using a monoclonal antibody specific for the tumour immunoglobulin *J Pathol* 1990; 160: 231-38. [9] Petersen GL. A simplification of the protein assay method of Lowry et al which is more generally applicable. *Anal Biochem* 1987; 83: 346-56. [10] Gerdes J, Lemke H, Baisch H, Wacker H, Schwab U, Stein H. Cell cycle analysis of a cell proliferation associated human nuclear antigen defined by **monoclonal** Ki67. *J Immunol* 1984; : 133: 1710-15. [11] Smith KA. Interleukin-2: inception, impact and implications. *Science* 1988; 240: 1164-76. [12] Mason DY, Coomans-Bitter WM, Cordell JL, Verhoeven MAJ, Van Dongen JM. Antibody L26 recognises an intracellular epitope on the B cell associated CD20 antigen. *Am J Pathol* 1990; 136: 1215-22. [13] Beverly PCL, Callard RE. Distinctive functional characteristics of human T lymphocytes defined by E-rosetting or a **monoclonal** anti-T cell antibody. *Eur J Immunol* 1981; 126: 2117-22. [14] Hussell T, Isaacson PG, Crabtree JE, Dogan A, Spencer J. Immunoglobulin specificity of low grade B cell gastrointestinal lymphoma of mucosa-associated lymphoid tissue (MALT)-type. *Am J Pathol* 1993; 142: 285-92. [15] Hussell T, Isaacson PG, Spencer J. Proliferation and differentiation of tumour cells from B-cell lymphoma of mucosa associated lymphoid tissue in vitro. *J Pathol* 1993; 169: 221-27. [16] Thomas JE, Gibson GR, Darboe MK, Dale A, Weaver LT. Isolation of **Helicobacter pylori** from human **faeces**. *Lancet* 1992; 340: 1194-95. [17] Cogliatti SB, Schmid U, Schumacher U, et al. Primary B cell gastric lymphoma: a clinicopathological study of 145 patients. *Gastroenterology* 1991; 101: 1159-70. [18] Green JE, Hinrichs SH, Vogel J, Jay G. Exocrinopathy resembling Sjogren's syndrome in HTLV-1 tax transgenic mice. *Nature* 1989; 341: 72-74. [19] Veronese ML, Veronesi A, D'Andrea E, et al. Lymphoproliferative disease in human peripheral blood mononuclear cell-injected SCID mice. I. T lymphocyte requirement for B cell tumour generation. *J Exp Med* 1992; 176: 1763-67. [20] Umetsu DT, Esserman L, Donlon TA, Dekruyff H, Levy R. Induction of proliferation of human follicular (B type) lymphoma cells by cognate interreaction with CD4 T cell. *J Immunol* 1990; 144: 2550-57.

COPYRIGHT 1993 Lancet Ltd.

SPECIAL FEATURES: illustration; graph; photograph
 INDUSTRY CODES/NAMES: HLTH Healthcare
 DESCRIPTORS: Lymphomas--Care and treatment; Stomach cancer--Care and treatment; *Helicobacter* infections--Complications
 FILE SEGMENT: HI File 149

FILE SEGMENT: HI File 149
?t s2/6,kwic/9-53 60-62 64 67
>>>KWIC option is not available in file(s): 399

2/6,KWIC/9 (Item 2 from file: 349)
DIALOG(R)File 349:(c) 2004 WIPO/Univentio. All rts. reserv.

01077740
OX40 (=CD134) RECEPTOR AGONISTIC AND THERAPEUTIC USE
MOLECULES DE LIAISON AGONISTES AU RECEPTEUR OX40 HUMAIN

Publication Language: English

Filing Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 22744

Publication Year: 2003

Fulltext Availability:

Detailed Description

Detailed Description

... from the group consisting

of disorders or diseases associated with Acinetobacter
sp. , Aeromonas hydrophila, Alcaligenes **faecalis** ,
Bacillus cereus, Bacteroides fragilis, Bacteroides
ovatus, Bacteroides ureolyticus, Bacteroides vulgatus,
Borrelia burgdorferi, Borrelia vincentii, Brucella...
...Clostridium sporogenes,
Clostridium sp., Clostridium tetani, Corynebacterium
diphtheriae, Edwardsiella tarda, Enterobacter aerogenes,
Enterobacter cloacae, Enterococcus **faecalis** , Escherichia
coli, Francisella tularensis, Haemophilus influenzae,
Helicobacter pylori , Klebsiella oxytoca, Klebsiella
ozaenae, Klebsiella pneumoniae, Klebsiella
rhinoscleromatis, Leptospira icterohemorrhagiae,
Mycobacterium tuberculosis, Mycoplasma spp. , Neisseria...

...Preferably, the agonistic binding molecules,
preferably the human agonistic binding molecules such as
human agonistic **monoclonal** antibodies according to the
invention, the variants or fragments thereof, the
immunoconjugates according to the...

2/6,KWIC/10 (Item 3 from file: 349)
DIALOG(R)File 349:(c) 2004 WIPO/Univentio. All rts. reserv.

01035954
EPIZOOTIC CATARRHAL ENTERITIS PREVENTION, TREATMENT AND DIAGNOSIS
PREVENTION, TRAITEMENT ET DIAGNOSTIC APPLICABLES A L'ENTERITE CATARRHALE
EPIZOOTIQUE

Publication Language: English

Filing Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 38284

Publication Year: 2003

Fulltext Availability:

Detailed Description

Detailed Description

... with concurrent diseases such as insulinoma, adrenal-associated
endocrinopathy, and long-standing gastric infection with **Helicobacter**
mustelae often have more severe clinical signs and higher mortality than
younger ferrets. Concurrent bacterial...acute phases of disease,
coronavirus-like particles may be identified by electron microscopic

examination of **feces** but this method of diagnosis is not practical for everyday usage. The term "coronavirus-like...unavailable. In chronic stages of the disease, virions may still be intermittently shed in the **feces** ; however, their concentration may, be below that necessary for identification.

General Characteristics of Coronaviruses

Coronaviruses...antigenic groups that contain several species and serotypes. The strong immunoreactivity identified with the

44

monoclonal antibodies used in the Example 3 suggests that this particular coronavirus belongs to Coronavirus antigenic...

2/6,KWIC/11 (Item 4 from file: 349)

DIALOG(R)File 349:(c) 2004 WIPO/Univentio. All rts. reserv.

00954663

IMMUNOCHROMATOGRAPHIC TEST PIECE AND DIAGNOSIS KIT

PIECE DE TEST IMMUNOCHROMATOGRAPHIQUE ET KIT DE DIAGNOSTIC

Publication Language: Japanese

Filing Language: Japanese

Publication Year: 2002

English Abstract

...is intended to provide an immunochromatographic test piece and a diagnosis kit whereby infection with **Helicobacter pylori** can be judged at a high sensitivity with the use of **feces** as specimens. An immunochromatographic test piece comprising a laminate composed of a rectangular antibody immobilized...

...water-absorbing support made of filter paper laminated thereon. In the antibody immobilized substrate, a **monoclonal** antibody undergoing an antigen-antibody reaction with native catalase of H. **pylori** is immobilized on a nitrocellulose sheet. In the support holding the colored latex particle labeled-material, nonwoven fabric is impregnated with a colored latex particle-labeled anti-H. **pylori** antibody wherein a **monoclonal** antibody undergoing an antigen-antibody reaction with native catalase of H. **pylori** is immobilized on colored latex particles.

French Abstract

...piece de test immunochromatographique et d'un kit de diagnostic dans lesquels les infections a **Helicobacter pylori** peuvent etre estimees a haute sensibilite a l'aide d'echantillons de **feces** . La piece de test immunochromatographique comprend un stratifie comportant un substrat rectangulaire immobilise a anticorps...

...papier filtre stratifie sur celui-ci. Dans le substrat a immobilisation d'anticorps, un anticorps **monoclonal** subissant une reaction antigene-anticorps avec une catalase native de H. **pylori** est immobilise sur une feuille de nitrocellulose. Dans le support contenant la matiere marquee par...

...particules de latex colorees, un tissu non tisse est impregne d'un anticorps anti-H. **pylori** marque par des particules de latex colorees, dans lequel un anticorps **monoclonal** subissant une reaction antigene-anticorps avec une catalase native d'H. **pylori** est immobilise sur des particules de latex colorees.

2/6,KWIC/12 (Item 5 from file: 349)

DIALOG(R)File 349:(c) 2004 WIPO/Univentio. All rts. reserv.

00943174 **Image available**

IDENTIFICATION OF ESSENTIAL GENES IN MICROORGANISMS

IDENTIFICATION DE GENES ESSENTIELS DANS DES MICROORGANISMES

Publication Language: English

Filing Language: English

Fulltext Availability:

Detailed Description
Claims
Fulltext Word Count: 496038
Publication Year: 2002

2/6,KWIC/13 (Item 6 from file: 349)
DIALOG(R)File 349:(c) 2004 WIPO/Univentio. All rts. reserv.

00911972 **Image available**
LACTIC ACID BACTERIA INHIBITING ADHESION OF HELICOBACTER PYLORI TO GASTRIC MUCOSA
BACTERIES LACTIQUES PERMETTANT D'INHIBER L'ADHESION D'HELICOBACTER PYLORI A LA MUQUEUSE GASTRIQUE
Publication Language: English
Filing Language: English
Fulltext Availability:
Detailed Description
Claims
Fulltext Word Count: 16585
Publication Year: 2002

Fulltext Availability:
Detailed Description

Detailed Description

... 37°C. In addition, except for the PL bacteria, the control plate was reacted with only **Helicobacter pylori** as described above, and agitated for 2 hr. The plate was rinsed 3 times with the same buffer for 10 min/time. The first antibody, rabbit antiserum raised against H. **pylori**, was added to ... disodium salt/nitro blue tetrazolium chloride). Therefore, the chromogenic level showed the adherence degree of **Helicobacter pylori** to glycolipid derived from red blood cells.

FIG. 1 is a TCL plate showing that with **Helicobacter pylori** bound to glycolipid extracted from red blood cells, the amounts of bound H. **pylori** increased linearly as the amount of spotted glycolipid (0 ug, 0.14 ug, 1.4...

... FIG. 2 is TLC plate for observing whether or not Lactobacillus inhibits the adhesion of **Helicobacter pylori** on glycolipids. PL bacteria (Lactobacillus coprophilus PL 9001 (KCCM-10245), Enterococcus durans PL 9002 (KCCM-10246), Streptococcus **faecalis** PL 9003 (KCCM-10247), Lactobacillus coprophilus PL 9004 (KCCM-10248), Lactobacillus fermentum PL 9005 (KCCM...

... 10251) was reacted with **Helicobacter pylori**. As shown in FIG. 2, PL bacteria of the EXAMPLE inhibited the adherence of **Helicobacter Pylori**.

(4) Test for inhibiting adherence of **Helicobacter pylori** to the gastric mucosa
Bacteria having biological activity and non-viable bacteria prepared by boiling...

... phosphate-buffered saline), a new medium was added, and cultured further 30 min at 37°C.

Helicobacter pylori (106 CFU) and PL bacteria (107 CFU) were added to these MKN cells and...

... three times with PBS-Tween20. The secondary antibody which is the FITC conjugate with mouse **monoclonal** anti-rabbit IgG (Sigma-Aldrich, Inc) were added (1:100 dilution) and cells were incubated...

2/6,KWIC/14 (Item 7 from file: 349)

00866878 **Image available**

**ASSEMBLY OF WILD-TYPE AND CHIMERIC INFLUENZA VIRUS-LIKE PARTICLES (VLPS)
ASSEMBLAGE SAUVAGE-CHIMERIQUE DE PARTICULES VIRALOIDES DE LA GRIPPE (VLP)**

Publication Language: English

Filing Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 15035

Publication Year: 2002

Fulltext Availability:

Detailed Description

Detailed Description

... influenza moieties include, but are not limited to, those from cancer cells or tumor cells, **monoclonal** antibodies (used, for example, as targeting and/or treatment moieties), allergens, amyloid peptide protein, or...
...and nontypable), Haemophilus somnus, Moraxella cata.r.rhalis, Streptococcus pneumoniae, Streptococcus pyogenes, Streptococcus agalactiae, Streptococcus **faecalis**, **Helicobacter pylori**, Meissneria meningitidis, Neisseria gonorrhoeae, Chlamydia trachomatis, Chlamydia pneumoniae, Chlamydia psittaci, Bordetella pertussis, Salmonella typh(inverted...

2/6,KWIC/15 (Item 8 from file: 349)

00856036

**IMMUNOASSAY FOR H. PYLORI IN FECAL SPECIMENS USING GENUS SPECIFIC
MONOCLONAL ANTIBODY**

**DOSAGE IMMUNOLOGIQUE DE H. PYLORI DANS DES ECHANTILLONS DE MATIERES
FECALES AU MOYEN D'UN ANTICORPS MONOCLONAL SPECIFIQUE D'UN GENRE**

Publication Language: English

Filing Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 4074

Publication Year: 2001

**IMMUNOASSAY FOR H. PYLORI IN FECAL SPECIMENS USING GENUS SPECIFIC
MONOCLONAL ANTIBODY**

**DOSAGE IMMUNOLOGIQUE DE H. PYLORI DANS DES ECHANTILLONS DE MATIERES
FECALES AU MOYEN D'UN ANTICORPS MONOCLONAL SPECIFIQUE D'UN GENRE**

Fulltext Availability:

Detailed Description

Claims

English Abstract

A process for the determination of H. **Pylori** in a **fecal** specimen using a **Helicobacter** or Camplobacter genus specific **monoclonal** antibody.

French Abstract

L'invention porte sur un procede de determination de H. **Pylori** dans un echantillon de matieres **fecales** au moyen d'un anticorps **monoclonal** specifique du genre **Helicobacter** ou Camplobacter.

Detailed Description

IMMUNOASSAY FOR H. **PYLORI**

IN **FECAL** SPECIMENS USING GENUS SPECIFIC **MONOCLONAL** ANTIBODY

BACKGROUND

This invention relates to a method for detecting

Helicobacter pylori in fecal specimens.

H. **pylori** is a bacterium that is found in the upper gastrointestinal tract of humans which has...

...other maladies. The bacterium was originally classified as a **Campylobacter** and then reclassified as a **Helicobacter** based on more detailed information regarding its ultrastructure and fatty acid composition.

A number of different techniques, both invasive and noninvasive, have been used to detect H. **pylori**. The invasive techniques involve gastric biopsies and cultures.

The noninvasive techniques include a urea breath...

...C-13 or C-14 labeled urea with a beverage, and the detection of H. **pylori** antibody in sera using antigens in enzyme-linked immunosorbent assays (ELISA). Examples of the latter...

...does not necessarily mean that the patient is currently infected and requires treatment for H. **pylori** infection. When confronted with a positive ELISA, treating physicians often order a gastric biopsy to...

...designed that would be specific for H. **pylori** and sensitive enough to reliably detect H. **pylori** antigen directly from a fecal specimen.

SUMMARY OF THE INVENTION

The present invention provides a method for detecting H. **p**
ylori in fecal specimens which comprises.

(a) dispersing a **fecal** specimen suspected of carrying H. **pylori** in a sample diluent;
(b) contacting the **fecal** specimen in the diluent with a first antibody reactive with H. **pylori** antigen to form a complex of the antibody and the antigen;
(c) separating said specimen...

...of said first and second antibody being selected from the group consisting of polyclonal H. **pylori** antigen specific antibodies, a plurality of monoclonal H. **pylori** antigen specific antibodies and mixtures thereof and the other being a **Helicobacter** or **Campylobacter** genus specific monoclonal antibody, one of said first and second antibody being bound...
...detecting the amount of the labeled antibody and in turn determining the presence of H. **pylori** antigen in said **fecal** specimen.

The immunoassay will typically be supplied in the form of a kit including a...

...more of the following assays can be used to detect the presence of the H. **pylori** antigen: an enzyme-linked assay, a radioimmunoassay, a fluorescence immunoassay, a chemiluminescent assay, a lateral...

...assay.

DETAILED DESCRIPTION

The immunoassay of the present invention employs genus specific monoclonal antibody to **Helicobacter** or **Campylobacter** on one side of the assay and a H. **pylori** specific antibodies

on the other side of the assay.

The genus specific monoclonal antibodies used herein can cross-react with different species and strains of **Helicobacter** or **Camplobacter**. Genus specific monoclonal antibody for **Helicobacter** or **Camplobacter** can be obtained commercially. Examples include the following monoclonal antibodies obtained ...antibodies could be used as an alternative to using a polyclonal antibody. **H. pylori** specific **monoclonal** antibodies can be obtained.

H. pylori cells from ATCC strain 43504 have been found to...assay involves the step wise addition first of a solution of labeled antibody to the **fecal** specimen followed by the addition of the unlabeled antibody bound ...unreacted labeled antibody.

So-called triple sandwich assays can also be used for detecting **H. pylori** in **fecal** specimens in accordance with the invention. Triple assays are known in the art and the basic methodology can be applied to the detection of **H.**

- . **pylori** in **fecal** specimens. A triple assay is typically conducted by dispersing a **fecal** specimen suspected of carrying **H. pylori** in a sample diluent which minimizes cross-reactivity and adding the diluted sample to an immobilized genus specific **monoclonal** antibody. The sample is incubated to form the antibody-antigen complex. After washing excess specimen...

Claim CLAIMS

1 A process for the determination of **H. pylori** in a fecal specimen which comprises:

(a) dispersing a fecal specimen in a sample diluent...

- ...pylori antigen bound to a solid carrier and a second labeled antibody reactive with **H. pylori** to form a complex of the antibodies and the antigen, one of said first and second antibody being selected from the group consisting of polyclonal antibodies, a plurality of **H. pylori** antigen specific monoclonal antibodies and mixtures thereof and the other being a **Helicobacter** or **Camplobacter** genus specific monoclonal antibody;
- (c) separating said specimen and said complex;
- (d) detecting the labeled antibody and in turn determining the presence of **H. pylori** antigen in said fecal specimen.

12 A process for the determination of **H. pylori** in a **fecal** specimen which comprises:

(a) dispersing a **fecal** specimen in a sample diluent;

(b) contacting the **fecal** specimen in the diluent with a **Helicobacter** or **Camplobacter** genus specific monoclonal antibody bound to a solid carrier to form a complex...

- ...contacting the antibody-antigen complex formed in step (b) with a primary antibody for **H. pylori** antigen obtained from an antibody-producing species to produce an antibody-antigen-antibody complex;
- (e...

- ...a complex with said antibody-antigen-antibody complex; and
- (g) determining the presence of **H. pylori** antigen in said **fecal** specimen.
- . A kit for the determination of **H. pylori** in a **fecal**

specimen including a plate of wells having bound thereto a genus specific monoclonal antibody for H. **pylori** antigen, a protein-based sample diluent and a plurality of labeled antibodies for H. **pylori** antigen.

2/6,KWIC/16 (Item 9 from file: 349)

DIALOG(R)File 349:(c) 2004 WIPO/Univentio. All rts. reserv.

00855982

METHOD FOR THE ISOLATION OF HELICOBACTER PYLORI

PROCEDE PERMETTANT D'ISOLER L'<I>HELICOBACTER PYLORI</I> D'ECHANTILLONS HAUTEMENT CONTAMINES

Publication Language: English

Filing Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 12609

Publication Year: 2001

Fulltext Availability:

Detailed Description

Detailed Description

... 222 (2000>>. It is likely, therefore, that in culturing samples such as dental plaque, saliva, **feces** or water, containing low numbers of H. **pylori**, successful growth of H. **pylori** is inhibited...

...the surface of the cell membrane (Dunn et al., 'Turification and characterization of urease from **Helicobacterpylori** , " J BioL Chem. 265:9464-9469 (1990) and Hawtin. et al., "Investigation of the structure and localization of the urease of **Helicobacterpylori** using **monoclonal** 1 0 antibody," J Gen. MicrobioL 136:1995-2000 (1990>>. H. **pylori** urease can rapidly...

2/6,KWIC/17 (Item 10 from file: 349)

DIALOG(R)File 349:(c) 2004 WIPO/Univentio. All rts. reserv.

00837445 **Image available**

IDENTIFICATION OF ESSENTIAL GENES IN PROKARYOTES

IDENTIFICATION DE GENES ESSENTIELS DANS DES PROCARYOTES

Publication Language: English

Filing Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 169888

Publication Year: 2001

Fulltext Availability:

Detailed Description

Detailed Description

... of an Antibody to an isolated Staphylococcus aureus, Salmonella tEphimurium, Klebsiella pneumoniae, Pseudomonas aeruginosa Enterococcus **faecalis** , Escherichia coli, Enterococcus **faecalis** , Haemophilus influenzae, **Helicobacter pylori** , or Salmonella hi Protein Substantially pure protein or polypeptide (including one of the polypeptides of...

...off AMICON filter device (Millipore, Bedford, NM), to the level of a few micrograms/ml. **Monoclonal** or polyclonal antibody to the protein can then be prepared as follows.

1 0 **Monoclonal** Antibody Production by **Hybridoma** Fusion

Monoclonal antibody to epitopes of any of the peptides identified and isolated as described can be prepared from murine **hybridomas** according to the classical method of Kohler, G. and Milstein, C., Nature 256:495

(1975...

2/6,KWIC/18 (Item 11 from file: 349)
DIALOG(R)File 349:(c) 2004 WIPO/Univentio. All rts. reserv.

00811929

NOVEL **HELICOBACTER PYLORI**-BINDING SUBSTANCES AND USE THEREOF
NOUVELLES SUBSTANCES DE LIAISON D'**HELICOBACTER PYLORI** ET LEUR UTILISATION

Publication Language: English

Filing Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 17972

Publication Year: 2001

Fulltext Availability:

Detailed Description

Detailed Description

... on thin
layer plates, while the main gangliosides migrated as
GM3. GM 1 and GD3. **Helicobacter pylori** -binding lactosyl
ceramide with phytosphingosine and hydroxy fatty acids
has also been characterised in the...
...stomach.

Due to limited access to human gastric tissue, the
inventors initially concentrated on the **Helicobacter pylori** -binding
glycosphingolipid detected in human meconium, which is the first sterile faeces of the newborn
and consists mainly of extruded mucosal cells from the
developing gastrointestinal tract. After isolation, this
Helicobacter pylori -binding glycosphingolipid was characterised by mass spectrometry, proton NMR spectroscopy and
methylation analysis ...report, was obtained by antrectomy
due to duodenal or gastric ulcer. Immunohistochemical
studies, using the monoclonal antibody K-21, demonstrated
a selective expression of the Galp3GlcNAc-sequence in superficial human gastric mucosa (foveolar epithelium) of
non-secretor individuals (59), coinciding with the localisation of **Helicobacter pylori** -binding to tissue sections
(8, 9). An immunohistochemical study, utilising polyclonal antibodies binding to...

2/6,KWIC/19 (Item 12 from file: 349)
DIALOG(R)File 349:(c) 2004 WIPO/Univentio. All rts. reserv.

00808314

DIAGNOSIS AND TREATMENT FOR **HELICOBACTER PYLORI** INDUCED COLIC
DIAGNOSTIC ET TRAITEMENT DE LA COLIQUE INDUITE PAR **HELICOBACTER PYLORI**

Publication Language: English

Filing Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 2741

Publication Year: 2001

Fulltext Availability:

Detailed Description

Detailed Description

... the present invention provides that infants suffering from previously
undiagnosed colic be tested for H. **pylori** infection using an effective
method for determining the presence of the H. pylori bacterium. The...

...are referenced in the literature. These include the urea breath test, gastric biopsy, fecal culture, **fecal** PCR, saliva culture and blood serology for H. pylori antibodies. Examples of the latter techniques...

...and European Patent Application 0 329 570 to Blaser. Other known methods for detecting H. **pylori** infection that may be used in accordance with the present invention include the serum antibody...

...relatively inexpensive, and non-invasive would be highly desirable. In accordance therewith, a recently developed **fecal** immunoassay available from Meridian Diagnostics as described in US Patent 5,716,791, the contents...

...non-invasive nature of this assay makes it particularly desirable for use in detecting H. **pylori** infection in infants. In brief, that assay method comprises.

dispersing a **fecal** specimen suspected of carrying H. **pylori** in a sample diluent; contacting the **fecal** specimen in the diluent with a first polyclonal antibody for H. **pylori** antigen to form a complex of the antibody and the antigen; separating said specimen from...

...detection agent; and detecting the labeled antibody and in turn determining the presence of H. **pylori** antigen in said **fecal** specimen. This method can be varied by employing monoclonal antibody which is genus specific for **Helicobacter** or **Campylobacter** in place of one of the polyclonal antibodies. Such genus specific antibodies are commercially available. A mixture of monoclonal H. **pylori** specific antibodies can be ...ELISA, a substrate solution.

Whatever method is used to determine the presence of the H. **pylori** bacterium in an infant exhibiting symptoms of colic, whether one of the methods specifically delineated herein or another acceptable method, in those cases in which H. **pylori** infection is detected, the infant is then treated using an accepted treatment regimen in accordance with present invention. Though numerous antibiotics have activity against H. **pylori** in vitro, therapy with a single antibiotic is generally ineffective in clinical practice. This is...

...effectiveness of certain antibiotics and the protection afforded by the gastric mucous gel which H. **pylori** inhabits.

Successful therapies for H. pylori usually involve 2 to 4 drugs given for periods...

2/6,KWIC/20 (Item 13 from file: 349)

DIALOG(R)File 349:(c) 2004 WIPO/Univentio. All rts. reserv.

00780471

ISOLATION OF CELLS FROM FORENSIC SAMPLES FOR DNA-TYPING

ISOLATION DE CELLULES DANS DES ECHANTILLONS JUDICIAIRES POUR EMPREINTES GENETIQUES

Publication Language: English

Filing Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 6701

Publication Year: 2001

Fulltext Availability:

Detailed Description

Detailed Description

... Muscle Nerve, 21, 1064

Brodsky, FM; Parham, P; Barnstable, CJ; Crumpton, MJ; Bodmer, WF (1979).

...a viral capsid made up of repetitive protein subunits. The antibodies can be polyclonal or **monoclonal**, and can be IgG, IgM, or IgA. In many applications, polyclonal antibodies are preferred, as...

2/6,KWIC/27 (Item 20 from file: 349)
DIALOG(R)File 349:(c) 2004 WIPO/Univentio. All rts. reserv.

00434421

HELICOBACTER PYLORI ANTIGEN HAVING AN APPARENT MOLECULAR WEIGHT OF 16U2 KDA, A SPECIFIC ANTIBODY, AND ITS USE FOR THE DETECTION OF SAID ANTIGEN
ANTIGENE D'HELICOBACTER PYLORI POSSEDANT UN POIDS MOLECULAIRE APPARENT DE 16 U 2 kDa, ANTICORPS SPECIFIQUE, ET SON UTILISATION POUR LA DETECTION DE CET ANTIGENE

Publication Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 5671

Publication Year: 1998

Fulltext Availability:

Detailed Description

Detailed Description

... relating to *Helicobacter pylori*

- infections;

e) the use of the specific immunological recognition of a **monoclonal** antibody, named Helix-1 and produced by a **hybridoma** named 2H11, or of **monoclonal** and/or polyclonal antibodies directed against the 16 +/- 2kDa *Helicobacter pylori* antigen to detect, in...

...coming

from an organism or the environment or from a culture in vitro.

BACKGROUND ART

Helicobacter pylori is a curve Gram-negative bacterium which is considered to be the most important cause of gastritis and peptic ulcer disease in humans.

There is also evidence that **Helicobacter pylori** infection is associated with gastric cancer and mucosa-associated lymphoid tissue (MALT) lymphoma.

It is...

...infection transmission.

It is believed that they are of interpersonal type (oral oral or oral- **fecal**) or derived from external carriers or sources (e.g. foods, contacts with animals) .

Helicobacter pylori gastric infection can be detected by looking for the bacterium directly on the bioptical sample...

2/6,KWIC/28 (Item 21 from file: 349)
DIALOG(R)File 349:(c) 2004 WIPO/Univentio. All rts. reserv.

00356213 **Image available**

OPPOSABLE-ELEMENT ASSAY DEVICE EMPLOYING CONDUCTIVE BARRIER

DISPOSITIF D'ESSAI A ELEMENT OPPOSABLE DOTE D'UNE BARRIERE CONDUCTRICE

Publication Language: English

Fulltext Availability:

Detailed Description

Claims

(ABC-GO, Vector Laboratories, Burlingame...

2/6,KWIC/30 (Item 23 from file: 349)
DIALOG(R)File 349:(c) 2004 WIPO/Univentio. All rts. reserv.

00328748 **Image available**
METHODS FOR PRODUCING ENHANCED ANTIGENIC ENTERIC BACTERIA AND VACCINES
COMPRISING SAME

PROCEDES DE PRODUCTION DE BACTERIES ENTERIQUES ANTIGENES AMELIOREES ET
VACCINS LES CONTENANT

Publication Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 20314

Publication Year: 1996

Fulltext Availability:

Detailed Description

Detailed Description

... one antigenic determinant

35 of an enteric bacteria of the present invention* Such
polyclonal and **monoclonal** antibodies are useful as immunoassay
reagents for detecting enteric bacteria in an animal or

8

biological sample therefrom, The polyclonal and **monoclonal**
antibodies of the present invention are also useful as passive
vaccines for use in protecting...

...invention having enhanced antigenic properties

selected from the group consisting of: Campylobacter sp.,
Yersinia sp., **Helicobacter** sp.,, Gastrospirillum sp.,
Bacteroides sp.,, Klebsiella sp., Enterobacter sp., Salmonella
sp., Shigella sp.,, Aeromonas sp...

...having enhanced antigenic

properties selected from the group consisting of.

Campylobacte.r sp., Yersinia sp., **Helicobacter** sp.,,
Gastrospirillum sp., Bacteroides sp.,, Klebsiella sp.,,
35 Enterobacter sp.,, Salmonella sp.,, Shigella sp.,, Aeromonas...

...enterocolitica, Yersinia pestis,

Yersinia pseudotuberculosis, Escherichia coli, Shigella
flexneri, Shigella sonnei, Shigella dysenteriae, Shigella
boydii, **Helicobacter pylori**, **Helicobacter felis**,
Gastrospirillum hominus, Vibrio cholerae, Vibrio
20 parahaemolyticus,, Vibrio vulnificus, Bacteroides fragilis,
Clostridium difficile, Salmonella...

...Salmonella gallinax-um, Salmonella pullorum, Salmonella
choleraesuis, Salmonella enteritidis, Klebsiella pneumoniae,
Enterobacter cloacae, and Enterococcus **faecalis**, Preferred
15 Escherichia coli include but are not limited to entero-toxic,
entero@hemorrhagic, entero...

2/6,KWIC/31 (Item 24 from file: 349)
DIALOG(R)File 349:(c) 2004 WIPO/Univentio. All rts. reserv.

00328747 **Image available**
METHODS FOR PRODUCING ENHANCED ANTIGENIC **HELICOBACTER** SP. AND VACCINES
COMPRISING SAME

METHODES DE PRODUCTION D'**HELICOBACTER** SP. ANTIGENE AMELIORE ET DE VACCINS
LE CONTENANT

Publication Language: English

Fulltext Availability:

Detailed Description
Claims
Fulltext Word Count: 19413
Publication Year: 1996

Fulltext Availability:
Detailed Description

Detailed Description

- ... one antigenic determinant
3S of an enteric bacteria of the present invention. Such polyclonal and **monoclonal** antibodies are useful as immunoassay reagents for detecting enteric bacteria in an animal or
- 8
biological sample therefrom. The polyclonal and **monoclonal** antibodies of the present invention are also useful as passive vaccines for use in protecting...
- ...invention having enhanced antigenic properties
selected from the group consisting of: Campylobacter Sp., Yersinia Sp., **Helicobacter** Sp.,, Gastrospirillum Sp.,, Bacteroides Sp., Klebsiella Sp., Enterobacter Sp., Salmonella Sp., Shigella Sp., Aeromonas Sp...
- ...bacteria having enhanced antigenic properties selected from the group consisting of.
Campylobacter Sp.,, Yersinia Sp.,, **Helicobacter** Sp.,, Gastrospirillum Sp.,, Bacteroides Sp.,, Klebsiella Sp.,, 35 Enterobacter Sp., Salmonella Sp., Shigella Sp., Aeromonas...
- ...enterocolitica, Yersinia pestis,
Yersinia pseudotuberculosis, Escherichia coli, Shigella flexneri, Shigella sonnei, Shigella dysenteriae, Shigella boydii, **Helicobacter pylori**, **Helicobacter felis**,, Gastrospirillum hominus, Vibrio cholerae, Vibrio 10 parahaemolyticus, Vibrio vulnificus, Bacteroides fragilis, Clostridium difficile, Salmonella...
- ...Salmonella gallinarum, Salmonella pullorum, Salmonella chole.raesuis, Salmonella enteritidis, Klebsiella pneumoniae, Enterobacter cloacae, and Enterococcus **faecalis**. Preferred IS Escherichia coli include but are not limited to entero-toxic, entero-hemorrhagic, entero...

2/6,KWIC/32 (Item 25 from file: 349)
DIALOG(R)File 349:(c) 2004 WIPO/Univentio. All rts. reserv.

00267046 **Image available**
TEST STRIP FOR IMMUNOASSAYS
BANDETTES D'ESSAI POUR IMMUNODOSAGES
Publication Language: English
Fulltext Availability:
Detailed Description
Claims
Fulltext Word Count: 8420
Publication Year: 1994

Fulltext Availability:
Detailed Description

Detailed Description

- ... membranes in the throat in order to detect for example, Streptococcus A. occult blood in **faeces**, which is connected to intestinal cancer can be detected in a **faecal** sample using a test strip according to the invention to show the presence of human...

aeruginosa, Pyrococcus abyssi...

2/6,KWIC/35 (Item 3 from file: 654)

DIALOG(R)File 654:(c) Format only 2004 The Dialog Corp. All rts. reserv.

0005509166 **IMAGE Available

Derwent Accession: 2004-121559

Detection of heteroduplex polynucleotides using mutant nucleic acid repair enzymes with attenuated catalytic activity

Fulltext Word Count: 68444

Number of Claims: 105

Exemplary or Independent Claim Number(s):

1,11,17,26,31,65,67,69,70,71,73,104

Number of Drawing Sheets: 2

Number of Figures: 2

Description of the Invention:

...provoke an immune response. Methods for preparation of such antibodies are known. For example, the **hybridoma** that expresses the **monoclonal** antibody is altered by recombinant DNA techniques to express an antibody in which the amino...

2/6,KWIC/36 (Item 4 from file: 654)

DIALOG(R)File 654:(c) Format only 2004 The Dialog Corp. All rts. reserv.

5497373 **IMAGE Available

Derwent Accession: 2004-068644

Utility

C/ Method for detecting Helicobacter pylori infection

Fulltext Word Count: 7923

Number of Claims: 6

Exemplary or Independent Claim Number(s): 1

Number of Drawing Sheets: 1

Number of Figures: 1

Number of US cited patent references: 4

Number of non-patent cited references: 2

Summary of the Invention:

...with gastric disease (Vaira, D., et al., "Usefulness of serology in preendoscopic screening. The Italian **Helicobacter pylori** Study Group," **Helicobacter**, 1997 July; 2 Suppl. 1: S38-S43). Also, detection of salivary...

...samples. Another method of diagnosis requires stool sampling coupled with laboratory analysis to detect H. **pylori** antigen in **fecal** matter. The drawbacks of these methods are they require specially-trained personnel and specialized equipment...in the oral cavity has been tested as a non-invasive means of detecting H. **pylori** infection, however it has been rejected as being unsatisfactory for diagnosis. In the prior art, there has been only a low probability of identifying H. **pylori** organisms from oral samples of persons with known gastric infection (Thomas et al., 1997, supra). Prior art methods of oral sampling for H. **pylori** have required sophisticated laboratory techniques such as identifying genetic material of the bacteria (e.g., polymerase chain reaction). See also Husson, M., et al., "Detection of H. **pylori** in saliva using a monoclonal antibody," Int. J. Med. Microbiol. Virol., Parasitol. Infect. Dis., 1993...

...The medical literature continues to express the opinion that the mode of transmission of H. **pylori** infection in humans is unknown and that H. **pylori** is only occasionally cultured from saliva in persons with known infection (Parsonnet, J, et al., " **Fecal** and oral shedding of **Helicobacter pylori** from healthy infected adults," JAMA, Dec. 15, 1999; 282(23): 2240-2245). The above study...

...the prior art teaches away from use of oral fluid sampling for diagnosis of H. **pylori** infection. Another factor is that normally present oral bacteria can inhibit growth of H. **pylori** (Ishihara, K., et al., "Oral bacteria inhibit **Helicobacter pylori** growth," FEMS Microbiol. Lett., Jul. 15, 1997; 152(2): 355-361). Thus it would be surprising that oral sampling could be used for diagnosis of H. **pylori** infection...

2/6,KWIC/37 (Item 5 from file: 654)

DIALOG(R)File 654:(c) Format only 2004 The Dialog Corp. All rts. reserv.

0005493976 **IMAGE Available

Derwent Accession: 2002-599705

Metapneumovirus strains and their use in vaccine formulations and as vectors for expression of antigenic sequences

Fulltext Word Count: 93689

Number of Claims: 48

Exemplary or Independent Claim Number(s):

1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,20,21,22,23,24,25,26,28,30,31,32,33,34,35,36,37,38,41,42,43,44,45,46,47,48

Number of Drawing Sheets: 132

Number of Figures: 132

Description of the Invention:

...are not limited to, antigens derived from species of the following genera: Salmonella, Shigella, Chlamydia, **Helicobacter**, Yersinia, Bordatella, Pseudomonas, Neisseria, Vibrio, Haemophilus, Mycoplasma, Streptomyces, Treponema, Coxiella, Ehrlichia, Brucella, Streptobacillus, Fusospirocheta, Spirillum...

...well as bacterial species such as: P. aeruginosa; E. coli, P. cepacia, S. epidermis, E. **faecalis**, S. pneumonias, S. aureus, N. meningitidis, S. pyogenes, Pasteurella multocida, Treponema pallidum, and P. mirabilis
...

2/6,KWIC/38 (Item 6 from file: 654)

DIALOG(R)File 654:(c) Format only 2004 The Dialog Corp. All rts. reserv.

0005386420 **IMAGE Available

Derwent Accession: 2003-569454

Modified tetracycline repressor protein compositions and methods of use

Fulltext Word Count: 59270

Number of Claims: 35

Exemplary or Independent Claim Number(s): 1,2,3,10,16,18,20,22,23,25,27

Number of Drawing Sheets: 3

Number of Figures: 3

Summary of the Invention:

...Chlamydia trachomatis, Clostridium botulinum, Clostridium tetani, Clostridium perfringens, Clostridium difficile, Corynebacterium diphtheriae, Enterobacter cloacae, Enterococcus **faecalis**, Escherichia coli, Haemophilus influenzae, **Helicobacter pylori**, Klebsiella pneumoniae, Listeria monocytogenes, Moraxella ...a revTetR, but not wild type TetR, are provided. The antibodies may be polyclonal or **monoclonal** antibodies, and are more preferably **monoclonal** antibodies that are specific for the conformation of the resulting revTetR or specific against the...

2/6,KWIC/39 (Item 7 from file: 654)

DIALOG(R)File 654:(c) Format only 2004 The Dialog Corp. All rts. reserv.

0005321341 **IMAGE Available

Derwent Accession: 2000-422851

COMPOSITIONS AND METHODS FOR REGULATING BACTERIAL PATHOGENESIS

...

...immunoglobulin does not bind the secondary antibody against the pathogen antigen in the salivary or **fecal** sample. The antibodies may, in principle, be **monoclonal**. In particular, the second primary antibody may be a **monoclonal** antibody for Human-IgA2. It is considered better to employ a plurality of a **monoclonal** antibodies which recognise different epitopes of the pathogen or of human immunoglobulin. With **monoclonal** primary antibodies it is considered better to employ a mixture of a plurality **monoclonal** antibodies, in order to broaden the specificity of the assay...

2/6,KWIC/41 (Item 9 from file: 654)

DIALOG(R)File 654:(c) Format only 2004 The Dialog Corp. All rts. reserv.

0005006907 **IMAGE Available

Derwent Accession: 2001-611495

Identification of essential genes in prokaryotes

Fulltext Word Count: 86970

Number of Claims: 44

Exemplary or Independent Claim Number(s):

1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44

Number of Drawing Sheets: 4

Number of Figures: 4

Description of the Invention:

...Production of an Antibody to an Isolated *Staphylococcus aureus*, *Salmonella typhimurium*, *Klebsiella pneumoniae*, *Pseudomonas aeruginosa*, *Enterococcus faecalis*, *Escherichia coli*, *Enterococcus faecalis*, *Haemophilus influenzae*, *Helicobacter pylori*, or *Salmonella typhi* ... off AMICON filter device (Millipore, Bedford, Mass.), to the level of a few micrograms/ml. **Monoclonal** or polyclonal antibody to the protein can then be prepared as follows...
...0663] **Monoclonal** Antibody Production by **Hybridoma** Fusion...

2/6,KWIC/42 (Item 10 from file: 654)

DIALOG(R)File 654:(c) Format only 2004 The Dialog Corp. All rts. reserv.

4212934 **IMAGE Available

Derwent Accession: 1994-234868

Utility

C/ Test strip, its production and use

; IMMUNOASSAY TEST STRIPS HAVING A BACKING SHEET AND A TEST MEMBRANE WITH A SAMPLE ABSORBING END OPPOSITE TO AN IMMUNOCHEMICAL REAGENT ZONE AND A TRANSPARENT COVER PRODUCING AN AIR GAP IN THE REAGENT ZONE BETWEEN SUPPORTING PADS

Fulltext Word Count: 7698

Number of Claims: 9

Exemplary or Independent Claim Number(s): 1

Number of Drawing Sheets: 1

Number of Figures: 4

Number of US cited patent references: 17

Number of non-US cited patent references: 24

Number of non-patent cited references: 7

Description of the Invention:

...membranes in the throat in order to detect for example, *Streptococcus A*. Occult blood in **faeces**, which is connected to intestinal cancer can be detected in a **faecal** sample using a test strip according to the invention to show the presence of human...
...called IGFBP-1 in a vaginal secretion sample. If two different label concentrations of a **monoclonal** antibody against IGFBP-1 are used in the same test, it is possible to detect...

2/6,KWIC/45 (Item 13 from file: 654)
DIALOG(R) File 654:(c) Format only 2004 The Dialog Corp. All rts. reserv.

3942212

Derwent Accession: 1997-552163

Utility

C/ Immunoassay for H. pylori in fecal specimens
; DILUTION; USING A POLYCLONAL ANTIBODY

Fulltext Word Count: 4154

Number of Claims: 13

Exemplary or Independent Claim Number(s): 1

Number of US cited patent references: 11

Number of non-US cited patent references: 7

Number of non-patent cited references: 9

Summary of the Invention:

...assay around the use of a single antigen. They also rule out the use of **monoclonal** antibodies. One approach that has been taken to improving the specificity and selectivity of antibody...

...for the invasive procedure. By contrast, if an immunoassay could be designed for detecting H. **pylori** antigen instead of the antibody, the need to obtain gastric biopsies to confirm infection could...
...days of its treatment. Thus, there is a need for an ELISA which detects H. **pylori** antigen and, more particularly, there is a need for an ELISA for detecting H. **pylori** directly from **fecal** specimens...

...While ELISA's for detecting microorganisms such as C. difficile and adenovirus in **fecal** specimens are known, in studies of patients with gastric biopsies which are positive for H. **pylori**, the bacteria ordinarily can not be cultured and isolated from the **fecal** specimens. This and the problems of cross reactivity and strain variation raised serious doubts that an ELISA could be designed that would be specific for H. **pylori** and sensitive enough to reliably detect H. **pylori** antigen directly from a **fecal** specimen. The present invention provides a method for detecting H. **pylori** in **fecal** specimens which comprises...

...a) dispersing a **fecal** specimen suspected of carrying H. **pylori** in a sample diluent...

...b) contacting the **fecal** specimen in the diluent with a first polyclonal antibody for H. **pylori** antigen to form a complex of the antibody and the antigen...

2/6,KWIC/46 (Item 14 from file: 654)
DIALOG(R) File 654:(c) Format only 2004 The Dialog Corp. All rts. reserv.

3936967 **IMAGE Available

Derwent Accession: 1994-234868

Utility

C/ Test strip, its production and use
; IMMUNOASSAY

Fulltext Word Count: 7970

Number of Claims: 14

Exemplary or Independent Claim Number(s): 1

Number of Drawing Sheets: 1

Number of Figures: 4

Number of US cited patent references: 10

Number of non-US cited patent references: 23

Number of non-patent cited references: 7

Description of the Invention:

...membranes in the throat in order to detect for example, Streptococcus A. Occult blood in **faeces**, which is connected to

Immunoassay for H. Pylori in fecal specimens using genus specific monoclonal antibody

Immunoassay fur H. pylori in Fakalienproben bestimmt mit gattungsspezifisches Antikorper

Essais immunologique pour H. pylori en epreuves de feces avec des anticorps genre-specifiques

LANGUAGE (Publication,Procedural,Application): English; English; English

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
----------------	----------	--------	------------

CLAIMS A	(English)	200147	663
----------	-----------	--------	-----

SPEC A	(English)	200147	3114
--------	-----------	--------	------

Total word count - document A	3777
-------------------------------	------

Total word count - document B	0
-------------------------------	---

Total word count - documents A + B	3777
------------------------------------	------

Immunoassay for H. Pylori in fecal specimens using genus specific monoclonal antibody

...ABSTRACT A1

A process for the determination of H. Pylori in a fecal specimen using a Helicobacter or Camplobacter genus specific monoclonal antibody.

...SPECIFICATION certain disadvantages to using an ELISA which employs antigens to detect the presence of H. pylori antibodies. In particular, the antibody titer in human sera remains high for a prolonged time...

*...designed that would be specific for H. pylori and sensitive enough to reliably detect H. pylori antigen directly from a fecal specimen.

Summary of the Invention

The present invention provides a method for detecting H. pylori in fecal specimens which comprises:

(a) dispersing a fecal specimen suspected of carrying H. pylori in a sample diluent;

(b) contacting the fecal specimen in the diluent with a first antibody reactive with H. pylori antigen to form a complex of the antibody and the antigen;

(c) separating said specimen...

...of said first and second antibody being selected from the group consisting of polyclonal H. pylori antigen specific antibodies, a plurality of monoclonal H. pylori antigen specific antibodies and mixtures thereof and the other being a Helicobacter or Camplobacter genus specific monoclonal antibody, one of said first and second antibody being bound...

...detecting the amount of the labeled antibody and in turn determining the presence of H. pylori antigen in said fecal specimen.

The immunoassay will typically be supplied in the form of a kit including a...

...more of the following assays can be used to detect the presence of the H. pylori antigen: an enzyme-linked assay, a radioimmunoassay, a fluorescence immunoassay, a chemiluminescent assay, a lateral...

...assay.

Detailed Description

The immunoassay of the present invention employs genus specific monoclonal antibody to Helicobacter or Camplobacter on one side of the assay and a H. pylori specific antibodies on the other side of the assay.

The genus specific monoclonal antibodies used herein can cross-react with different species and strains of Helicobacter or Camplobacter. Genus specific monoclonal antibody for Helicobacter or Camplobacter can be obtained commercially. Examples include the following monoclonal antibodies obtained from BIODSIGN...

pylori , and that the i.m. route can be considered for vaccination against ...the presently claimed animal model is clearly useful in developing vaccines and chemotherapeutics against **H. pylori** and assessing their efficacy.

Experimental

Infection in animal model

H. pylori strain. SPM326s, a streptomycin-resistant derivative of the mouse-adapted **H. pylori** Type I (CagA+NacA+) strain SPM326 (37), was grown as previously described (37) and used...

...Italy), were selected on the basis of the absence of detectable serum IgG against **H. pylori** in Western blot (WB) analysis using total bacterial lysate as antigen (see below). The three...

...Upon arrival in our animal facilities, an additional WB analysis on sera confirmed their **H. pylori** status. The dogs were housed in individual cages and allowed to adapt for a month to the new environment. During the month of adaptation, two tests were carried out on **fecal** samples to assess the presence of intestinal parasites or common enteric pathogenic bacteria.

The dogs...

...3 times every other day over a one-week period with the mouse-adapted **H. pylori** SPM326s strain as follows: 24 h before each challenge the dogs were fasted. 2 h...

...ml of a freshly prepared suspension of 109 CFUs in sterile saline of the **H. pylori** strain SPM326s, grown under microaerobic conditions (see below), prepared immediately before the inoculation procedure. At...

2/6,KWIC/24 (Item 17 from file: 349)

DIALOG(R)File 349:(c) 2004 WIPO/Univentio. All rts. reserv.

00460090

i(ENTEROCOCCUS FAECALIS) POLYNUCLEOTIDES AND POLYPEPTIDES
POLYNUCLEOTIDES ET POLYPEPTIDES D'i(ENTEROCOCCUS FAECALIS)

Publication Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 87462

Publication Year: 1998

Fulltext Availability:

Detailed Description

Detailed Description

... used since it avoids the problem of delialogenation of the 1251 or 1311-labeled **monoclonal** antibody by the liver. In addition, this radionucleotide has a more favorable gamma emission energy...

...invention includes a diagnostic kit for use in screening serum containing antibodies specific against **E. faecalis** infection. Such a kit may include an isolated **E. faecalis** antigen comprising an epitope which is specifically immunoreactive with at least one anti-**E. faecalis** antibody. Such a kit also includes means for detecting the binding of said antibody to...

...reporter-labeled anti-human antibody. In this embodiment, binding of the antibody to the **E. faecalis** antigen can be detected by binding of the reporter labeled antibody to the anti-**E. faecalis** polypeptide antibody.

In a related aspect, the invention includes a method of detecting **E. faecalis** infection in a subject. This detection method includes reacting

Helicobacter pylori in precise agreement with the judgment results of the urea breath test. On the other...

...disagreements (false positives) with two specimens (specimen Nos. 16 and 19).

Example 6

(Detection of **Helicobacter pylori** in fecal specimens by immunochromatography)

(1) Preparation of antibody-immobilizing supports

For preparing antibody-immobilizing supports with the anti-**Helicobacter pylori** monoclonal antibody and anti-rabbit IgG antibody immobilized thereon in series, a nitrocellulose sheet (product...

...2) Preparation of a colored latex particle-labeled product

a. Red latex particle-labeled anti- **Helicobacter pylori** antibody
PBS (1.2 mL) was added to 300 (μ)L of a red...

...to proceed at room temperature for 1 hour. For removing the unreacted portion of the monoclonal antibody, centrifugation was carried out at 13,000 rpm for 5 minutes, the sediment was...

...covering with a transparent adhesive tape, to give an immunochromatographic test piece.

(4) Detection of **Helicobacter pylori** in fecal specimens

Tests were carried out using feces from the six persons (3...mL of PBS containing 1% skim milk-0.01% sodium azide.

(2) Detection of **Helicobacter pylori** in fecal specimens

Tests were carried out using feces from the six subjects (3 positive and 3 negative) described in Example 4. A 0.1-g portion of each fecal specimen was taken and suspended in 1 mL of PBS containing 0.1% BSA-0...

...rpm, and the supernatant was obtained. A 50- (μ)L portion of this supernatant of fecal suspension and 50 (μ)L of the latex particle-labeled anti- **Helicobacter pylori** antibody prepared in (1) were dropped onto a latex agglutination board and mixed up using...

...confirmed with all the positive specimens.

Example 8

(Molecular weight determination of the antigen in feces by gel filtration)

Twenty grams of feces specimens provided by **Helicobacter pylori** -positive persons (No. 4 and No. 5 in Table 3) were suspended in 100 mL ...

...monoclonal antibody 21G2-immobilized plate and biotin-labeled monoclonal antibody 41A5). As a result, the **Helicobacter pylori** -specific antigen in feces was found to have a molecular weight of 270 kDa.

Example 9

(Antigen identification)

(1...

...Pharmacia Biotech) according to the method described in Amersham Pharmacia Biotech's Affinity Chromatography Handbook. **Helicobacter pylori** (ATCC 43504) cells were disrupted by sonication and subjected to ultracentrifugation, and 5 mL of...

...at 407 and 277 nm. These values were very similar to the literature values for **Helicobacter pylori** catalase (405 and 280 nm, J. Gen. Microbiol. (1991), 137, 57-61).

Helicobacter ou d'une metalloproteinase de **Helicobacter** ,
eventuellement fixe sur un materiau de support ; et eventuellement en
outre

- (b) un dispositif pour la preparation et l'analyse d'echantillons d'
excrements .

50. Conditionnement contenant le dispositif de test selon la
revendication 47 ou 48 ou le...

...qui lie de maniere specifique un antigene d'une bacterie
acido-resistante appartenant au genre **Helicobacter** ou de deux
recepteurs qui lient de maniere specifique deux epitopes du meme
antigene , l'antigene etant une catalase de **Helicobacter** ou une
metalloproteinase de **Helicobacter** , pour la detection d' une
infection par cette bacterie chez un mammifere dans les **excrements** .

2/6,KWIC/52 (Item 6 from file: 348)

DIALOG(R)File 348:(c) 2004 European Patent Office. All rts. reserv.

00881428

Immunoassay for **H. pylori** in fecal specimens

Immunoassay fur **H. pylori** in Fakalienproben

Essais immunologique pour **H. pylori** en epreuves de feces

LANGUAGE (Publication,Procedural,Application): English; English; English

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	199711W1	600
CLAIMS B	(English)	200201	602
CLAIMS B	(German)	200201	629
CLAIMS B	(French)	200201	717
SPEC A	(English)	199711W1	3407
SPEC B	(English)	200201	3493
Total word count - document A			4008
Total word count - document B			5441
Total word count - documents A + B			9449

SPECIFICATION This invention relates to a method for detecting

Helicobacter pylori in fecal specimens.

H. pylori is a bacterium that is found in the upper...

...alternative aspect of this invention, there is provided a process for
the determination of **H. pylori** in a fecal specimen which comprises:

(a) dispersing a fecal specimen suspected of carrying **H. pylori** in a
sample diluent;

(b) contacting the fecal specimen in the diluent with a first
polyclonal antibody for **H. pylori** antigen produced by a first
antibody-producing species and bound to a solid carrier to...the
antibody-antigen complex formed in step (b) with a primary polyclonal
antibody for **H. pylori** antigen obtained from a second
antibody-producing species to produce a antibody-antigen-antibody complex
...

...a complex with said antibody-antigen-antibody complex; and

(g) determining the presence of **H. pylori** antigen in said **fecal**
specimen.

Accordingly, there is provided, in a fourth alternative aspect of this
invention, a kit for the determination of **H. pylori** in a **fecal**
specimen including a plate of wells having bound thereto polyclonal
antibody for **H. pylori** antigen, a protein-based sample diluent, a
conjugate of an enzyme polyclonal antibody for **H. pylori** antigen, wash
buffer and, a substrate solution.

Our immunoassay employs polyclonal antibodies for **H. pylori** . These
antibodies can be obtained from the sera of a sensitized animal.
Sensitization can be...

...be detectable. Antibody production is verified using a trial bleed and
Indirect Fluorescent Assay.

H. pylori cells from ATCC strain 43504 have been found to be
particularly useful in producing the polyclonal antibody. As previously
mentioned, substantial strain variation has been observed in **H. pylori** .

Differences in the organism have been observed in different geographic regions as well as dietary...

...in detecting the organism in certain populations, cells from more than one strain of *H. pylori* could be used to produce the antibody.

The same labels used in known immunometric assays...

...The unlabeled polyclonal antibody used in our process to extract the antigenic substance from the **fecal** specimen being tested can be immobilized on any of the supports commonly used in immunometric...

...to such materials are well known to those skilled in the art.

To prepare the **fecal** specimen for use in the assay, the specimen is dispersed in a protein-based sample...

...SPECIFICATION B1

This invention relates to a method for detecting *Helicobacter pylori* in fecal specimens.

H. pylori is a bacterium that is found in the upper...alternative aspect of this invention, there is provided a process for the determination of *H. pylori* in a fecal specimen which comprises:

(a) dispersing a fecal specimen suspected of carrying *H. pylori* in a sample diluent;

(b) contacting the fecal specimen in the diluent with a first polyclonal antibody for *H. pylori* antigen produced by a first antibody-producing species and bound to a solid carrier to...

...the antibody-antigen complex formed in step (b) with a primary polyclonal antibody for *H. pylori* antigen obtained from a second antibody-producing species to produce a antibody-antigen-antibody complex ...

...a complex with said antibody-antigen-antibody complex; and

(g) determining the presence of *H. pylori* antigen in said **fecal** specimen.

Accordingly, there is provided, in a fourth alternative aspect of this invention, a kit for the determination of *H. pylori* in a **fecal** specimen including a plate of wells having bound thereto polyclonal antibody for *H. pylori* antigen, a protein-based sample diluent, a conjugate of an enzyme polyclonal antibody for *H. pylori* antigen, wash buffer and, a substrate solution.

Our immunoassay employs polyclonal antibodies for *H. pylori*. These antibodies can be obtained from the sera of a sensitized animal. Sensitization can be...

...be detectable. Antibody production is verified using a trial bleed and Indirect Fluorescent Assay.

H. pylori cells from ATCC strain 43504 have been found to be particularly useful in producing the polyclonal antibody. As previously mentioned, substantial strain variation has been observed in *H. pylori*. Differences in the organism have been observed in different geographic regions as well as dietary...

...in detecting the organism in certain populations, cells from more than one strain of *H. pylori* could be used to produce the antibody.

The same labels used in known immunometric assays...

...The unlabeled polyclonal antibody used in our process to extract the antigenic substance from the **fecal** specimen being tested can be immobilized on any of the supports commonly used in immunometric...

...to such materials are well known to those skilled in the art.

To prepare the **fecal** specimen for use in the assay, the specimen is dispersed in a protein-based sample...

07464930

INSPECTION METHOD FOR DETERMINING INFECTION TO HELICOBACTER PYLORI

PUB. NO.: 2002-333447 [JP 2002333447 A]

PUBLISHED: November 22, 2002 (20021122)

INVENTOR(s): WAKASUGI MASAHIKO

NAKATANI SEIGO

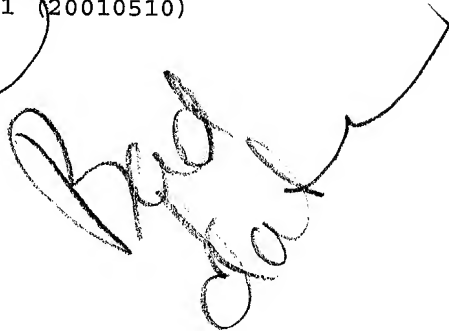
SUZUKI NOBUYUKI

HIRATA HARUHISA

APPLICANT(s): WAKAMOTO PHARMACEUT CO LTD

APPL. NO.: 2001-139906 [JP 2001139906]

FILED: May 10, 2001 (20010510)

A large, stylized handwritten signature in black ink, likely belonging to the applicant or inventor, is written over the bottom right portion of the printed text.

01298576

MONOCLONAL ANTIBODY, HYBRIDOMA, IMMUNOASSAY METHOD AND DIAGNOSIS KIT
MONOKLONALER ANTIKORPER, HYBRIDOMA, IMMUNTESTVERFAHREN UND DIAGNOSEKIT
ANTICORPS MONOCLONAL, HYBRIDOME, IMMUNOESSAI ET NECESSAIRE A DIAGNOSTIC
PATENT ASSIGNEE:

Wakamoto Pharmaceutical Co., Ltd., (707594), 5-3, Nihonbashi-Muromachi
1-chome, Chuo-ku, Tokyo 103-8330, (JP), (Applicant designated States:
all)

INVENTOR:

Wakasugi, Masahiko, c/o Wakamoto Pharma. Co., Ltd., 5-3,
Nihonbashimuromachi 1-chome, Chuo-ku, Tokyo 103-8330, (JP)
Mochida, Ritsuko, c/o Wakamoto Pharma. Co., Ltd., 5-3,
Nihonbashimuromachi 1-chome, Chuo-ku, Tokyo 103-8330, (JP)
Hirata, Haruhisa, c/o Wakamoto Pharma. Co., Ltd., 5-3,
Nihonbashimuromachi 1-chome, Chuo-ku, Tokyo 103-8330, (JP)

LEGAL REPRESENTATIVE:

Ulmann, Catherine Claire et al (94281), Cabinet Beau de Lomenie, 158 rue
de l'Universite, 75340 Paris Cedex 07, (FR)

PATENT (CC, No, Kind, Date): EP 1227159 A1 020731 (Basic)
WO 200132908 010510

APPLICATION (CC, No, Date): EP 2000970144 001027; WO 2000JP7554 001027

PRIORITY (CC, No, Date): JP 99308475 991029; JP 200052377 000228; JP
2000244414 000811

DESIGNATED STATES: AT; BE; CH; CY; DE; FR; GB; IT; LI

EXTENDED DESIGNATED STATES: AL; IT; LW; MK; RO; SI

INTERNATIONAL PATENT CLASS: C12P-021/08; C12N-005/12; G01N-033/577;

G01N-033/573; G01N-033/569

ABSTRACT WORD COUNT: 91

NOTE:

Figure number on first page: NONE

*Does not
designate
US*

Not 100%

00640247

TEST STRIP FOR IMMUNOASSAYS

PRUFUNGSSTREIFEN FUR IMMUNOASSAYS

BANDETTES D'ESSAI POUR IMMUNODOSAGES

LANGUAGE (Publication,Procedural,Application): English; English; English

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS B	(English)	200011	688
CLAIMS B	(German)	200011	637
CLAIMS B	(French)	200011	749
SPEC B	(English)	200011	6975
Total word count - document A			0
Total word count - document B			9049
Total word count - documents A + B			9049

...SPECIFICATION membranes in the throat in order to detect for example, Streptococcus A. Occult blood in **faeces**, which is connected to intestinal cancer can be detected in a **faecal** sample using a test strip according to the invention to show the presence of human...

...called IGFBP-1 in a vaginal secretion sample. If two different label concentrations of a **monoclonal** antibody against IGFBP-1 are used in the same test, it is possible to detect...

...to show the presence of antibodies connected to infections, such as IgG class antibodies against **Helicobacter pylori** in serum. Said bacteria have been found to be an important etiologic factor in gastric...

2/6,KWIC/60 (Item 1 from file: 399)

DIALOG(R)File 399:(c) 2004 American Chemical Society. All rts. reserv.

Evaluation of a novel monoclonal enzyme immunoassay for detection of **Helicobacter pylori** antigen in stool from children

2/6,KWIC/61 (Item 2 from file: 399)

DIALOG(R)File 399:(c) 2004 American Chemical Society. All rts. reserv.

Immunoassay for **H. pylori** in fecal specimens using genus specific monoclonal antibody

2/6,KWIC/62 (Item 3 from file: 399)

DIALOG(R)File 399:(c) 2004 American Chemical Society. All rts. reserv.

Detection of **Helicobacter pylori** gene by means of immunomagnetic separation-based polymerase chain reaction in feces

2/6,KWIC/64 (Item 1 from file: 347)

DIALOG(R)File 347:(c) 2004 JPO & JAPIO. All rts. reserv.

07464930

INSPECTION METHOD FOR DETERMINING INFECTION TO **HELICOBACTER PYLORI**

ABSTRACT

PROBLEM TO BE SOLVED: To provide an inspection method capable of diagnosing the infection to **Helicobacter pylori** in a low price, excellent in specificity without cross-reacting properties and having excellent sensitivity...

...pain and requiring no particular device.

SOLUTION: The inspection method comprises determining the infection to **Helicobacter pylori** by detecting the native catalase of **Helicobacter pylori** present in an alimentary canal excrement with a monoclonal antibody for the native catalase of **Helicobacter pylori**. The monoclonal antibody is the one produced by hybridoma 31A3 (FERM

P-18329) and/or **hybridoma** 82A3 (FERM P-18328).

COPYRIGHT: (C)2003,JPO

2/6,KWIC/67 (Item 1 from file: 340)
DIALOG(R)File 340:(c) 2004 IFI/CLAIMS(R). All rts. reserv.

4049775

C/(A1) COMPOSITIONS AND METHODS FOR REGULATING BACTERIAL PATHOGENESIS
(B) COMPOSITIONS AND METHODS FOR REGULATING BACTERIAL PATHOGENESIS

Non-exemplary Claims: ...80. The method of claim 78, wherein the antibody
is **monoclonal** .

...

...cholerae, *Vibrio parahaemolyticus*, *Vibrio alginolyticus*, *Pseudomonas*
phosphoreum, *Yersinia enterocolitica*, *Escherichia coli*, *Salmonella*
typhimurium, *Haemophilus influenzae*, ***Helicobacter pylori*** , *Bacillus*
subtilis, *Borrelia burgdorferi*, *Neisseria meningitidis*, *Neisseria*
gonorrhoeae, *Yersinia pestis*, *Campylobacter jejuni*, *Deinococcus*
radiodurans, *Mycobacterium tuberculosis*, *Enterococcus faecalis* ,
Streptococcus pneumoniae, *Streptococcus pyogenes* and *Staphylococcus*
aureus

?logoff hold